

**Jefferson County
Land and Water Resource Management Plan
2006-2010**

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Plan Summary

The Jefferson County Land and Water Resource Management Plan for 2006-2010 is an update of the 2000-2005 plan. Based on an assessment of the land and water resources in the county, this report sets forth a strategic work plan for achieving goals toward protection and enhancement of those resources. The Land and Water Conservation Department (LWCD) will implement the work plan through various federal, state, and local programs and funding mechanisms. It is important to note that the implementation of the work plan is dependent on receiving adequate financial resources to cover staff and the various cost-sharing programs.

The plan first details the many accomplishments from the 2000-2005 plan. Of particular note is the Jefferson County cost-share program that was started in 2005 with \$20,000. This program was very successful and \$25,000 has been allocated for the 2006 budget.

The plan development process and the involvement of the public and a variety of partners is detailed in the plan. A diverse Advisory Committee was assembled to consider the resource issues and develop a work plan. Members of the Committee either attended the meeting held in May 2005 or submitted their written comments and suggestions to the LWCD. The Department of Agriculture, Trade, and Consumer Protection, the Department of Natural Resources, and the Farm Service Agency were all solicited for their input. The public were invited to become involved in the review of the work plan through a public hearing held on October 18, 2005. In addition, a press release was sent to the major county papers to inform the public about the availability of the plan for review.

Information is detailed on the land and water resources in Jefferson County. With more than half of its land area in agriculture, Jefferson County has a wide array of agricultural issues. At the same time, rural development issues are increasing due to the development pressures that exist from being situated between the Madison and Milwaukee metropolitan areas. Surface water and wetland resources cover almost 20% of Jefferson County, making conservation practice implementation critical in both agricultural and developed areas. The most current data on the resources is presented in the plan as well as some of the projects and partners involved in ongoing management activities.

The Land and Water Resource Management Plan contains information on implementation, laws and ordinances involved in management, and the goals, objectives, and actions of the work plan. Components of the Plan will be implemented in accordance to various state and county ordinances and regulations including: the county's Animal Waste Storage and Nutrient Management Ordinance, the county's Nonmetallic Mining Reclamation Ordinance, the county's Shoreland Zoning Ordinance, and the state's Runoff Management Administrative Code (NR 151).

A Priority Farm Strategy is used to implement the performance standards and prohibitions in State Administrative Code NR 151 in a priority driven manner. The Priority Farms include the following: farms identified by the DNR as critical sites, farms

receiving a DNR notice of discharge or notice of intent, farms within 1,000 feet of DNR designated Impaired Waters due to sediment or nutrients, farms identified as having significant manure management problems, and farms that have excessive cropland erosion. Because it is hard to estimate how large the workload will be with each individual farm, the LWCD will work to achieve compliance on 10 Priority Farms in 2006. This number will be adjusted each year according to how realistic this estimate turns out to be given staff time and resources.

An implementation strategy for NR 151 is included in the plan. This strategy includes the following items:

- ~ Implementing information and education activities to educate landowners about NR 151
- ~ Determining compliance with NR 151 including a records inventory and onsite evaluations
- ~ Developing a compliance report to be sent to each landowner that will report their status of compliance. If they are noncompliant, then it will further explain the necessary steps to attain compliance.
- ~ Working with landowners who voluntarily take steps to achieve compliance with NR 151
- ~ Issuing a notification to landowners who do not choose to voluntarily take steps to achieve compliance with NR 151. This notification will explain the process to attain compliance and the possible consequences of failing to comply.
- ~ Assisting farms with attaining compliance through technical assistance, best management practices, and cost-sharing
- ~ Implementing any necessary enforcement actions
- ~ Monitoring farms to verify ongoing compliance
- ~ Developing an annual report of activities relating to the implementation of NR 151

The goals, objectives, and actions of the work plan are contained in a table that details timing, annual estimated staff resources, and estimated annual cost share resources. Items in bold in this work plan are priorities for the Land and Water Conservation Department. These priority activities are listed below:

- ~ Achieve measurable progress on protecting the resources in Jefferson County through implementation of conservation practices and conservation plan development. This includes:
 - 1,500 feet of waterways per year
 - 2,000 acres of nutrient management plans per year
 - 400 feet of diversions per year
 - 50 acres of riparian buffers on agricultural land per year
 - 3 wetland restorations per year
 - 2 well closures per year
- ~ Assist landowners with their conservation needs
- ~ Administer the State Land and Water Resource Management Cost-Share Program
- ~ Administer the County Cost-Share Program
- ~ Install riparian and vegetative buffers and shoreline erosion control measures on qualifying lands

- ~ Abandon unused wells
- ~ Restore wetlands
- ~ Provide assistance to farmers to help them attain tolerable soil loss levels
- ~ Encourage farms to implement and maintain nutrient management plans
- ~ Educate landowners about the Agricultural Performance Standards and Prohibitions.
- ~ Determine the compliance status of farms in terms of the standards and prohibitions.
- ~ Attain compliance on farms that are identified as not adhering to the standards and prohibitions.
- ~ Ensure that animal waste storage structures are properly built, expanded, and closed according to the county ordinance.
- ~ Have all farmers in the County comply with the Manure Management Prohibitions.
- ~ Quickly remedy manure spills, manure discharges into water, and bad manure management practices.
- ~ Establish a new position in the LWCD to work on water resource issues.
- ~ Implement the recommendations in the Lake Enhancement report
- ~ Develop management plans for lakes in the county.
- ~ Complete a needs assessment of the rivers and streams including reaches at risk and resource concerns.
- ~ Foster information sharing between the LWCD and the County Farm Drainage Board about issues of common interest.
- ~ Encourage the planting of 20,000 trees each year.
- ~ Determine if a County storm water and erosion control ordinance is needed, and if so, have the county adopt it.

An information and education strategy that will work hand in hand with the goals, objectives, and actions of the LWCD is presented. In addition, there is a listing of all the partners of the LWCD.

Monitoring and evaluation is an integral component to the success of the Land and Water Plan and its goals. It will be an ongoing process that is implemented in a variety of ways. Throughout this process, necessary adjustments will be made to how actions in the work plan are implemented to ensure achievability of the goals. Monitoring and evaluation of the land and water resources in the county will be achieved through the following: compliance tracking for NR 151, conservation practice implementation, Farmland Preservation Program farm checks, livestock inventory, manure complaint investigations, nonmetallic mine tracking, nutrient management plan implementation, transect survey, and water quality monitoring in lakes and streams. Monitoring and evaluation of the administrative side of the Jefferson County LWCD will be achieved through the following: evaluating and refining administration of programs and financial and staff resources; reviewing and refining administration of cost-share programs; coordination of activities between LWCD, Farm Service Agency, and the Natural Resources Conservation Service; annual financial audit of grant revenues and expenditures; and periodic LWCD staff meetings.

Accomplishments from the 2000-2005 Jefferson County Land and Water Resource Management Plan

Jefferson County Cost-Share Program

In 2004, the Land and Water Conservation Department and Committee were successful in adding a Jefferson County cost-share program to the 2005 Jefferson County budget. The 2005 money allocated to this program was \$20,000. The LWCD staff crafted a ranking system for prioritizing applications which is based on compliance with state and local rules, and resource goals. The Cost-Share Program is set up to fund both agricultural and nonagricultural practices. The Program was a success with more than 17 applicants. Some landowners applied for practices that were not eligible under other programs but that benefited resources of the county. Unfortunately, not all conservation practices were able to be funded. \$25,000 is included in the 2006 budget for the Cost-Share Program.

State Land & Water Resource Management Cost-Share Program

Developed in 2000, the Land and Water Resource Management Cost-Share Program has been a success in Jefferson County by helping landowners with technical and financial assistance with installing conservation practices. The following is a summary of the practices installed from 2000 through 2004.

- 3,668 acres of Nutrient Management Plans
- 168.2 acres of No-Till
- 5,355 feet of Waterways
- 1,628 feet of Diversions
- 860 feet of Roof Runoff Systems
- 6,270 feet of Livestock Fencing
- 1 Cattle Crossing
- 1 Abandonment and Relocation of Animal Feeding Operations
- 25 Wetland Restorations
- 4 Well Closures

Installed Conservation Practices

Map 1 shows the location and type of conservation practices installed throughout Jefferson County. The practices were partially funded through the Jefferson County Cost-Share Program, the State Land and Water Resource Management Cost-Share Program, and the Rock Lake Priority Lake Project. Please note: federally funded projects are not included on this map.

Farmland Preservation Program

The LWCD implements the Farmland Preservation Program (FPP) by assisting farmers with development of conservation plans and performing compliance checks. There are 1,043 FPP participants amounting to 150,307 acres, which is 61% of the farmland acres. Jefferson County ranks 4th in the number of claims on taxes.

Conservation Reserve Enhancement Program

The LWCD plays a crucial role in the Conservation Reserve Enhancement Program by implementing the State portion of the funding. Over \$307,000 in state dollars have been brought into Jefferson County through direct payments to landowners. These monies are in addition to the U.S. Department of Agriculture payments to landowners.

As of August 2005, Jefferson County had 67 fifteen-year agreements and 26 perpetual agreements covering 1,324 acres of installed buffers and wetland restorations. The CREP plantings currently protect 124,257 feet of stream banks from erosion. The buffers have reduced 3,116 pounds of phosphorus, 1,694 pounds of nitrogen, and 2,193 tons of sediment from entering our surface water. They also provide a diverse wildlife habitat.

Jefferson County has almost \$700,000 in State allocations remaining so interested landowners can still participate in the program.

Animal Waste Storage and Nutrient Management Ordinance

The Animal Waste Storage and Nutrient Management Ordinance was first adopted in September of 1999. In 2004, the ordinance was updated by the Jefferson County Board in order to be in compliance with changes to State standards and codes.

There have been 17 Animal Waste Storage Permits issued, and 8 Animal Waste Storage Closure Permits issued. All projects have been implemented according to applicable standards. Nutrient Management Plans that are submitted in conjunction with permit applications are also reviewed by the LWCD.

Nutrient Management Planning

In addition to the plans that are reviewed in conjunction with the storage ordinance, the LWCD reviews nutrient management plans associated with Conditional Use permits through the Zoning Department, and WPDES permits through the DNR.

Jefferson County Lake Enhancement Project

Completed in 2003, the Jefferson County Lake Enhancement Plan identified the crucial actions necessary to protect and enhance the lakes of Jefferson County. Fourteen recommendations are included in the plan that addresses such topics as education, research, management actions, and law changes. Implementation of this plan is currently underway. Most noteworthy is the passage in 2005 of revisions to the Shoreland Zoning Ordinance that clearly defines rules associated with vegetation cutting and structure placement within the 75 foot water setback.

Rock Lake Priority Lake Project

Funding for the Rock Lake Priority Lake Project ended in December of 2004. More than \$138,400 was spent on implementing conservation practices to reduce sediment and phosphorus runoff. The list of implemented projects is listed below:

778 feet of Shoreline Erosion Control – Riprap
448 feet of Shoreline Erosion Control – Biolog

44,000 square feet of Shoreline Habitat Restoration
2 Manure Storage Structures - Stacking Pads
1317.9 acres of Nutrient Management
4.9 acres of Riparian Buffer
15 acres of High Residue Management
19.8 acres of Cropland Protection Cover
145 acres of No-Till
4 acres of Wetland Restorations
1 Well Closure

Nonmetallic Mines

The LWCD set up a permitting process for nonmetallic mines which included a public hearing. All 30 nonmetallic mines in the county are permitted and have approved reclamation plans. These permits are renewed annually. One mine is currently undergoing a reclamation.

Coordination with Partners

The LWCD works cooperatively with the U.S. Department of Agriculture offices to ensure that landowners receive the necessary support for implementing conservation practices and management actions.

The LWCD routinely refers landowners to various DNR personnel including foresters, water management specialists, conservation wardens, fishery biologists, etc.

Engineers with the Department of Agriculture and the Natural Resources Conservation Service regularly work with the LWCD and county farmers to consult and design a wide variety of conservation practices.

Coordination with Other County Departments

The LWCD works cooperatively with the Jefferson County Parks Department to plan and implement natural resource restorations at county parks. For instance, at Korth County Park, the following restorations have been completed: approximately 7,150 square feet of shoreland habitat, 2 acres of wetland, and 39 acres of prairie. LWCD staff also initiates and implements volunteer events for planting, weeding, and exotic species control.

The LWCD works in conjunction with the Zoning Department on shoreland zoning issues and review of nutrient management plans required with conditional use permit requests. In addition, the LWCD assists with the review of shoreland restoration plans and the assessment of erosion conditions as they relate to zoning rules.

Highlights of Education Activities

- 2000 – Well Closure Demonstration in conjunction with UW-Extension and Rock River Coalition
- 2000 – Controlling Erosion During Construction on 1 & 2 Family Home Sites, partnered with UW-EX and Department of Commerce to offer this workshop in Lake Mills for contractors and municipalities

2001 – Summer School field trip with 10 students from the Lake Mills Middle School on conservation practices and lake ecology in the Rock Lake and Lake Ripley watersheds

2002 – Presentation to 60 students in the Lake Mills High School Science Club regarding the Rock Lake Priority Project and Korth Park restoration

2004 – Shoreland Buffer and Rain Garden Tour with the Rock River Coalition and the UW-Extension, 15 Jefferson County citizens attended

2005 – Summer School Natural Resources Education, gave two presentations to over 100 1st through 4th graders at Luther Elementary School in Fort Atkinson.

Annually – Soil and Water Poster Contest, implement contest for K-12th graders

Annually – Annual Soil Stewardship Week Observance, provide education materials to more than 90 churches county-wide.

Annually – Farm Day at St. Colletta's School, give presentations to about 550 Jefferson County 4th grade students from 14 different elementary schools.

Bi-Annually – LWCD Newsletter printed twice a year and sent to over 2,100 landowners

As needed – press releases on programs and projects

Other Activities

Ongoing – Tree seedling sale (800,000 trees have been sold since the program was started in the mid-1980's)

Plan Development Process and Public Participation

Throughout 2005, the Jefferson County Land and Water Conservation Department (LWCD) took steps to update the Land and Water Resource Management Plan for the county. First, the work plan for the 2000-2005 plan was reviewed to determine accomplishments, continued needs, and activities that were implemented by other entities. Next, an Advisory Committee was formed to review this information and develop a work plan for 2006-2010. The members of the Advisory Committee were chosen to represent diverse interests: partner agencies (county, state, and federal), UW-Extension, local river and lake organizations, local conservation organizations, agricultural cooperatives, and farmers. A list of the members is included at the beginning of the document. A meeting of the Advisory Committee was held on May 18, 2005. Members were sent materials on the plan update and were asked to submit their views and ideas and/or to attend the May meeting. At the meeting, the 2000-2005 Work Plan was reviewed, additional activities that are being implemented by the LWCD but not in the plan were presented, and new ideas for actions and goals were discussed.

The Department of Agriculture, Trade and Consumer Protection and the Department of Natural Resources were given a copy of the revised work plan for comment. A first draft of the full Land and Water Resources Management Plan was provided to DATCP, DNR and FSA in September. Comments received from them were incorporated into the plan.

A final hearing draft was sent to the Advisory Committee, DATCP, DNR, and FSA prior to the public hearing for comment. A public hearing on the final draft Land and Water Resource Management Plan was held on Tuesday, October 18th at 6:00 p.m. in the Jefferson County Courthouse. A Class II Public Notice on the hearing was printed by the Daily Jefferson County Union. In addition, a press release was sent to the major papers in the county to inform people about the plan, public hearing, and the availability of the plan for review.

Input received from the public, Advisory Committee, DATCP, DNR, and FSA were incorporated into the final plan that was submitted to the Land and Water Conservation Board for approval in April 2006. The Jefferson County Board of Supervisors will consider adoption of the Land and Water Resources Plan after approval from the Land and Water Conservation Board.

Jefferson County Land and Water Resources

Jefferson County is located in south central Wisconsin. With a total of 373,082 acres of land, the county consists of many land and water resources including rivers, lakes, agricultural land, and natural areas. Situated between the Madison and Milwaukee metropolitan areas, there are concerns over the increasing development pressures on Jefferson County. The population of Jefferson County for 2000 was 75,767.

The surface features of Jefferson County are characteristic of a glaciated region. A conspicuous result of the glaciation is the large number of drumlins that occur throughout the region north of the Bark River and east of the Rock River. The drumlins in this area form a series of parallel ridges running in a general north-south direction. Throughout this region the intervening low areas consist of peat marshes. In general, the drumlins lying south of the Bark River and west of the Rock River are higher with more irregular outlines; and the intervening land usually consists of uplands.

Another pronounced topographic feature is the Kettle Moraine, which crosses the southeastern corner of the County. It covers approximately six square miles and attains an elevation of 1,040 feet in the County.

Land Uses

The different land uses in Jefferson County are detailed in Table 1. The information also is shown in Map 2.

Table 1. Jefferson County Land Uses (data from 2000 aerial photos, except for Upland Woods which is from 1996)

Land Use	Acres	% of Total Acres
Agriculture (cropland, orchards, tree nurseries, etc.)	208,187	55.8%
Wetlands (designated by DNR)	55,372	14.8%
Urban and Roadway Corridors (developed urban land and all road right of ways)	30,803	8.3%
Upland Woods (wooded areas in both rural and urban areas, not in wetlands)	26,114	7.0%
Rural Developed (rural homesteads, farm buildings, churches, cemeteries, government facilities, etc.)	18,157	4.9%
Surface Water	16,632	4.5%
Rural Open (rural uncultivated, vacant lots 5 or more acres, landfills)	14,870	4.0%
Recreation (public parks, golf courses, gun clubs, and non-public campgrounds)	2,306	0.6%
Commercial and Industrial (retail shops, manufacturing, machine shops, rail right of ways, communication facilities, utilities, etc.)	641	0.2%
Totals	373,082	100%

Watershed Characteristics

Jefferson County consists of 13 river watersheds of which 12 drain to the Rock River (Map 3). A small portion of the Southeast corner of Jefferson County drains to the Illinois Fox watershed.

As part of the Lake Enhancement Project, a map of the lake watersheds in the county was produced (Maps 4 and 5).

Surface Water Resources

Map 6 depicts the surface water resources of the County.

Exceptional Resource Waters

The entire segment of Allen Creek in Jefferson County has been designated as an Exceptional Resource Water (Map 7). Exceptional Resource Waters are defined by the State as having excellent water quality and valued fisheries but may already receive wastewater discharges. In some cases, new discharges may be allowed to correct environmental or public health problems.

The least darter, a species on the state's special concern list, is found in Allen Creek. Northern pike spawning habitat is found in wetlands adjacent to the stream and the Rock River. There are wetlands that help buffer the stream. However, sediment and nutrient loads are increasing due to historic ditching of tributaries, polluted runoff from stream bank pasturing, and steep slopes. Road salt runoff from Business Highway 26 also affects the creek. The proposed placement and construction of the Highway 12 bypass could adversely affect the water quality of the stream.

Currently, there are no Outstanding Resource Waters designated in Jefferson County. These waters are defined as having excellent water quality and high-quality fisheries. They do not receive wastewater discharges, and point source discharges will not be allowed in the future unless the quality of the discharge meets or exceeds the quality of the receiving water.

Impaired Surface Waters

The DNR lists surface waters in the state that are impaired in that they do not meet water quality standards or designated uses. Table 2 is the 2004 list of impaired waters for Jefferson County and Map 7 shows the location of the impaired waters. Once a water body is on the impaired list, the DNR is required to develop and implement the "total maximum daily load" (TMDL) process. This process includes the identification of all point and nonpoint sources of the pollutants of concern, allocation of total maximum daily discharges from all sources, and monitoring and modeling. TMDLs have not been developed for any of Jefferson County's impaired waters.

Table 2. Impaired Waters for Jefferson County (Source: DNR)

Water Body	Stream Miles	Total Miles	Pollutant	Impairment
Lake Koshkonong	NA	NA	phosphorus, sediment	dissolved oxygen, eutrophication, degraded habitat, sediment,
Mauneshia River (Crawford to Waterloo)	0 – 5.4	5	phosphorus, sediment	degraded habitat, dissolved oxygen
Rock Creek at Hoopers Millpond	0 – 12	12	PCB	fish consumption advisory
Rock Lake	NA	NA	mercury	fish consumption advisory
Rock River (Watertown to Ashippun River)	238 – 258	20	sediment	degraded habitat
Rock River (Watertown to Lake Koshkonong)	191-238	47	phosphorus	dissolved oxygen, eutrophication
Spring Creek	0 – 5	5	phosphorus, sediment	degraded habitat, temperature
Steel Brook	1.7 – 2.7	1	phosphorus, sediment	Degraded habitat, dissolved oxygen, temperature

In Jefferson County, the water quality impairments are caused by different factors. Lake Koshonong, Mauneshia River, and the Rock River segments all have impairments caused by a blend of point and nonpoint sources of pollution. Hooper's Millpond's impairment is caused by contaminated sediments. Sediment samples taken in 2002 indicated very low concentrations of PCBs in the millpond. Atmospheric Deposition is the cause of Rock Lake's impairment. Finally, nonpoint source pollution is the cause of the impairments for Spring Creek and Steel Brook.

Each impaired water is also designated a priority. Spring Creek and Steel Brook both have a medium priority with a TMDL completion date planned for 2006 or 2007. Mauneshia River, Hoopers Millpond, the Rock River from Watertown to Ashippun, and Rock Lake all have a low priority with completion of the TMDL planned for 2008-1011. Lake Koshkonong and the Rock River from Watertown to Lake Koshkonong, has a low priority with a completion of the TMDL planned for 2008-2015.

Streams and Rivers

Jefferson County has numerous streams and rivers. Table 3 provides information on the major streams and rivers including biological use categories and environmental problems occurring at each river.

The Rock River Coalition started training volunteers to monitor streams throughout the Rock River watershed. The following parameters are monitored monthly: oxygen,

Table 3. Characteristics of Streams in Jefferson County (Source: DNR, The State of the Rock River Basin, 2002)

Stream	Length (miles)	Existing Use	Potential Use	Supporting Potential Use	Use Impairment Source	Use Impairment Impact	Trend
Allen Creek ¹	8	WWSF	same	part	cl, by, nps, ce, hm, urb	hab, turb, sed, temp, do, nut, mig, flow	D
Ashippun River ¹	0 – 31.8	WWSF	same	Part	nps, hm	hab, sed, mig	U
Bark River ¹	68	WWSF	same	Part-Thr	hm, psb, by, cl, urb, ce, psm, dev, nps	flow, hab, mig, turb, do, nut, sed, mac, temp, zm	S
Battle Creek	0-2.1	WWFF	U	U	nps	hab, sed	U
Crawfish River ¹	49.5	WWSF		Part	hm, rf, nps	turb, sed, do, hm, hab, mig	
Deer Creek	0-2	WWSF	same	Part	hm, nps	flow, hab, turb, temp, do	S
	2-12	LFF	same	Part			
Duck Creek	11	WWSF	same	Part-Thr	hm, nps, psm, cl, by	flow, hab, turb, do, temp, mac, nut, sed, fkill	S
Galloway Creek ¹	5	WWFF	same	Part	hm, dev, cl, psb	flow, hab, nut, sed, do, temp	S
Johnson Creek	17.5	WWSF	same	Part	nps, dev, urb, ce	hab, sed, nut	D
Koshkonong Creek - Lower ¹	24	WWSF	WWSF	Part-Thr	hm, cl, psb, dev, by, psm, nps	do, hab, turb, nut, sed, temp	I
Mauneshia River ¹	32	WWSF	Same	Not	hm, nps, cl	hab, sed, nut	D
Mud Creek	8	LFF	LFF	Part	hm, nps, cl	flow, hab, turb, sed, nut, do, temp	U
Oconomowoc River ¹	40	WWSF	same	Part	nps, dev, hm	nut, hab, sed	D
Otter Creek ¹	16	WWSF	same	Part	hm, nps, cl, by	flow, hab, turb, sed, do temp, nut	S
Rock Creek	0 – 1.5	LFF	WWSF	Part	nps	hab, sed	U
	1.5 – 4.9	WWSF	same				U
Rock River ¹	56	WWSF	same	Part	nps, hm, sb	hab, sed, nut, mig	U
Scuppernong River	0 – 13	WWSF	WWSF	Part	urb, hm, nps, psm, cl	hab, flow, temp, do, nut	S
Spring Creek ¹	5	WWFF	WWFF	Not	hm, nps, psi	hab, flow, turb, temp, nut, do	S
Steel Brook ¹	0 – 1.7	WWFF	same	Part	hm, nps, cl, psb, ce, dev	sed, turb, temp, do, hab, nut	S
	1.7 – 6	COLD III	COLD II	Part-Thr	nps, cl	sed, turb, temp, do, hab, nut	S

Stream	Length (miles)	Existing Use	Potential Use	Supporting Potential Use	Use Impairment Source	Use Impairment Impact	Trend
Stoney Brook ¹	15	WWSF	same	Part	nps	hab, sed	U
Whitewater Creek ¹	0 – 14	WWSF	same	Part	hm, cl, sb, psb, by, ce, urb, psm	flow, hab, mig, temp, turb	S
	14 – 16	WWSF	COLD	Not	nps, urb, cl, ce	temp, turb, sed, do, flow	S

1. Part of stream is located in another county.

Stream Table Key

Existing Use and Potential Use – indicates the biological use that the stream supports.

COLD – waters capable of supporting a community of Cold Water Fish and other aquatic life or that serve as a spawning area for Cold Water Fish species

COLD I – Cold Water Community, high-quality stream where populations are sustained by natural reproduction

COLD II – Cold Water Community, stream has some natural reproduction but may need stocking to maintain a desirable fishery

COLD III – Cold Water Community, stream has no natural reproduction and requires annual stocking of legal-size fish to provide sport fishing

LFF – Limited Forage Fishery; waters capable of supporting only a limited community of tolerant forage fish and aquatic life; waters of limited capacity due to low flow, naturally poor water quality or poor habitat

WWSF – waters are capable of supporting community of Warm Water Sport Fish or serving as a spawning area for these fish

WWFF – waters capable of supporting an abundant, diverse community of Warm Water Forage Fish and other aquatic life

U – use is unknown

Use Impairment – Source

By – barnyard or exercise lot runoff

Ce – construction site erosion

Cl – cropland erosion

Dev – intense development pressure

Hm – hydrological modification (dam, ditching, wetland drainage)

Nps – unspecified nonpoint sources

Psb – streambank pasturing

Psi – point source, industrial discharge

Psm – municipal treatment plant discharge - point

Rf – rough fish population

Sb – streambank erosion

Urb – urban storm water runoff

Use Impairment – Impact

Do – dissolved oxygen

Fkill – fish kill

Flow – stream flow fluctuations caused by unnatural conditions

Hab – habitat (in-stream sedimentation, scouring, etc.)

Mac – undesirable rooted aquatic plant (macrophyte) or algal growth

Mig- fish migration interference

Nut- nutrient enrichment

Sed – sediment embeddedness

Turb – turbidity

Temp – temperature (fluctuations or extreme high or low)

Zm - not defined in report

Trend – Based upon Best Professional Judgment, or by comparing data from past plans.

I = improving, S = stable, D = declining, and U = unknown.

clarity, habitat, temperature, water flow, stream biota. Currently, the streams that are being monitored include Allen Creek, Scuppernong River, Johnson Creek, the Bark River, and an unnamed stream in Fort Atkinson. The LWCD will use the data to help make decisions on conservation priorities in the future.

Allen Creek

In 2005, a new community group was formed – the Friends of Allen Creek Watershed. The purpose of the group is to preserve and protect the Allen Creek watershed and also to educate people about the unique resources located in the basin. To this end, the FACW received a river grant from the Department of Natural Resources. Therefore, more resource information on this stream will be available in the future.

Koshkonong Creek

Koshkonong Creek is now free flowing after the removal of the Rockdale dam in 2001. Stream bank restoration and re-vegetation projects were implemented after the dam removal to reduce sedimentation downstream. However, agriculture operations in the watershed continue to affect the water quality.

The stream is classified as a warm water sport fishery. However, bullhead and rough fish dominate the fishery. Wetlands near the mouth of the creek at Lake Koshkonong provide spawning areas for northern pike.

Lakes

Jefferson County has 26 lakes that are an important resource not only for recreation, but also for plant and animal habitat. Table 4 lists some pertinent information on the lakes.

Though there are many lakes in the county, only a few of them have undergone water quality and habitat analysis. Because of their designation by the Department of Natural Resources as Long Term Trend Lakes, Lake Ripley and Rock Lake have benefited from such analyses. The other lakes in the County with more than basic data collection are those that have organized Lake Management Districts and include Blue Spring Lake, Lake Ripley, Lower Spring Lake, and Lake Koshkonong.

Blue Spring Lake

“An Inventory of Blue Spring Lake” reports that excessive growth of aquatic plants and poor water clarity are the two most critical problems in the lake. In a typical year, approximately 1,600 tons of nuisance plants are harvested. Nuisance plants such as Eurasian water milfoil and curlyleaf pondweed crowd out other more desirable plants, resulting in a loss of biodiversity. The poor water clarity is thought to be due to re-suspended sediment rather than algal growth. This re-suspended sediment contains high concentrations of phosphorus, which perpetuates the problem of nuisance plants in the lake. Studies on Blue Spring Lake include fish and macrophyte surveys.

Table 4. Characteristics of Jefferson County Lakes.

Name	Surface Area* (acres)	Max Depth (feet)	Mean Depth (feet)	Shoreline Length* (miles)	Watershed Area (sq. miles)	Public Access	Lake Hydrologic Type	Lake or Impoundment
Bean Lake	33	6	NA	0.87	1.3	T	SE	Lake
Blue Spring Lake	141	26	7	2.7	2.0	BR	SP	Impoundment
Cushman Pond	27	7	NA	2.98	119.5	X	DG	Impoundment
Golden Lake	250	46	13	3.60	2.0	BR***	SP	Lake
Goose Lake	143	4	NA	2.24	6.0	NO	DG	Lake
Hahns Lake	88	10	2	1.83	998.3	X	DG	Lake
Haumerson Pond	4	3	NA	0.5	342.6	R	SE	Lake
Hoopers Millpond	21	6	NA	1.23	21.7	R	DG	Impoundment
Hope Lake	126	24	NA	1.97	2.1	X	SE	Lake
Kurtz Pond	4	3	NA	0.33	0.1	NO, S	DG	Lake
Lake Koshkonong	10,460	7	5	27.3	2,543.7	BR	DG	Impoundment
Lake Ripley	418	44	18	4.10	7.3	BR	DG	Lake
Lower Spring Lake	109	11	4	3.18	27.1	BR	DG	Impoundment
Mud Lake Sumner	318	NA	NA	7	4.1	NW	NA	Lake
Mud Lake Sullivan	0.3	NA	NA	0.09	2.2	NO	NA	Lake
Mud Lake Lake Mills	95	22	NA	1.67	8.3	BR, T	DG	Lake
Mud Lake Concord	8	6	NA	0.42	0.5	NO, S	DG	Lake
Perch Lake	5	7	NA	0.46	0.1	NO, S	SE	Lake
Red Cedar Lake	336	6	NA	4.96	2.3	BR, T	SE	Lake
Rock Lake	1,371	56	16	11.9	15.1	BF, P	DG	Lake
Rome Mill Pond	379	7	2	13.63	111.7	BR	DG	Impoundment
Rose Lake	140	10	NA	3.37	1.7	T	SE	Lake
Round Lake	2	3	NA	0.26	0.1	NO, S	SE	Lake
Sindon/Weegs Pond	10	12	NA	0.6	0.2	NO, S	DG	Lake
Spence Lake	33	6	NA	1.00	0.4	T	NA	Lake
Upper Spring Lake	24	11	4	1.78	25.0	NO	DG	Impoundment
Totals	14,545.3			99.97	4,245.4			

* Determined from GIS using the 2000 aerial photo.

** No structures on lake (for Golden Lake, there are no structures on Jefferson County portion of lake.)

*** Boat ramp is located in Waukesha County (Golden Lake)

NA = not available

Public Access

BR-Boat ramp

BF-Barrier free BR (boat dock and/or wheelchair access)

NO-No Access

P-Barrier-free pier (wheel chair access)

NW-Navigable water access to lake

R-Roadside access

S- Surrounded by private property

T-Walk-in trail

X-Access, not specified

Lake Hydrologic Types

Drainage Lake (DG): Impoundments and natural lakes with the main water source from stream drainage. Has at least one inlet and one outlet.

Spring Lake (SP): Seldom has an inlet but always has an outlet of substantial flow. Water supply is dependent upon groundwater rather than surface drainage.

Seepage Lake (SE): Landlocked. Water level maintained by groundwater table and basin seal. Intermittent outlet may be present.

Golden Lake

The Department of Natural Resources and the Wisconsin Geological and Natural History Survey analyzed the aquatic plants in eight littoral areas in Golden Lake. Though this was not a comprehensive plant survey, the results indicate that the lake supports a diversity of plants. As many as 21 different species of aquatic plants were identified.

Lake Ripley

In 1993 Lake Ripley became a Priority Lake Project because it was recognized that (1) the lake provided valuable recreational and economic amenity for the area, (2) it was significantly threatened by the effects of nonpoint source pollution, and (3) there was a high potential for overall improvement once appropriate management strategies were implemented. The project is currently in the implementation phase, which is scheduled to wrap up in 2006.

Phosphorus, sediment, and other pollutants have degraded Lake Ripley's water quality over the years. The sources of these pollutants are mainly nonpoint source pollution from agriculture and intensive development. Nuisance algae blooms and excessive weed growth, particularly Eurasian water milfoil, results from the pollution loading into the lake. One of the goals of the Lake Ripley Priority Lake Project is to reduce sediment and phosphorus delivery to the lake.

Wetlands, important for fish and wildlife habitat and pollutant filtration, have significantly decreased in the Lake Ripley watershed. A 1903-1908 mapping effort documented 1,500 acres of wetlands. Currently there are approximately 385 acres of wetlands in the watershed. This represents a loss of 1,115 acres of wetlands, which was been attributed to agricultural tillage, drain modification, and development. To address this concern, the Priority Lake Project is working to restore and prevent the loss of wetlands in the watershed.

Studies and reports on Lake Ripley include: lake management plan, aquatic plant management plan, lake capacity study, and a study on the impacts of pier shading on the near shore environment.

Lower Spring Lake

In 2005, the Lower Spring Lake Protection and Rehabilitation District had an aquatic plant management plan completed because of excessive aquatic plant growth and the desire to improve the recreational and environmental aspects of the lake.

Rock Lake

Rock Lake was selected as a Priority Lake Project in 1995. The implementation phase of the project began in 1999 and the project officially ended in December of 2004. The lake has good water quality but nonpoint source pollution and degrading nearshore habitats threaten the water quality and fish and wildlife habitat functions of the lake.

Wetlands and upstream lakes in the watershed have effectively protected Rock Lake's water quality. Throughout the years, these resources function as filters that remove phosphorus and other pollutants before they reach Rock Lake. However, their ability to trap pollutants is declining and the phosphorus loading, especially to Mud Lake, is degrading the water quality of these "buffer" lakes and wetlands.

Fish and wildlife habitat is threatened in the lake and watershed due in part to water quality impairments, and the effects of development and recreation. Rock Lake's diverse aquatic plant community has been impaired due to the extensive piers, seawalls, and motor boat traffic. Drained wetlands and wetlands with declining water quality also result in reduced fish and wild life habitat in the watershed.

The Land and Water Conservation Department worked cooperatively with the Rock Lake Improvement Association and the Joint Rock Lake Committee on the development of a Lake Management Plan for Rock Lake. The final plan with recommendations and an implementation timeline will be available at the end of 2005.

Studies and reports on Rock Lake include an aquatic plant management plan, lake management plan, and a study of the impacts of pier shading on the near shore environment.

Wetlands

Jefferson County has 55,372 acres of wetlands that are designated by the Department of Natural Resources (Map 8). However, these maps are not exact and wetland delineations should be done when development is planned so that the wetlands are not adversely impacted.

Wetland restorations basically fall within two categories – wetland scrapes (1-2 acres) and large scale wetland restorations. Wetland scrapes are funded on agricultural land mainly through federal programs and on non-agricultural land by state and county programs. The large restorations are funded by the federal Wetland Reserve Program. In recent years, the "muck farms" in the county have been converted from vegetable

farms to wetlands. Most notably are 2 large areas totaling over 2,200 acres. Another area is set for restoration in 2006 and is more than 1,600 acres in size.

Groundwater Resources

Groundwater recharge takes place in the uplands, which consist of glacial till. The groundwater moves downward toward areas of lower elevation. In places, these low areas are overlain with silt and clay deposits of low permeability. This results in artesian conditions, particularly evident in the Scuppernong Creek and Bark River basins where flowing wells and springs are numerous and where peat mounds developed over some of the springs.

As part of a state requirement, source water areas for each municipal well in the County were delineated. Municipal officials used a 1,200 foot radius surrounding the wells to determine the source water areas.

The Rock River Coalition hopes to develop a Groundwater Flow model for the Rock River watershed. If this project is funded, then new data and information will be available. The objectives of this project are as follows:

1. Improve the overall understanding of the hydrology of the Rock River Basin by testing alternative conceptual models of the system.
2. Highlight areas where more data and what types of data are needed.
3. Evaluate surface-water/ground-water interactions and base flow contribution to the Rock River from its sub-basins
4. Estimate amounts and rates of ground-water flow and travel times
5. Provide information that can be used to characterize contaminant movement in the Basin

Natural Areas

Jefferson County currently has 729 acres of county parkland consisting of 17 parks, and 6.8 miles of bike trail. The parks offer a variety of recreational offerings including hiking trails, fishing areas, boat launches, scenic overlooks, and picnic facilities.

There are 10 State Natural Areas in Jefferson County:

- Ancient Aztalan Village – 25 acres
- Bean Lake – 195 acres
- Clifford F. Messinger Dry Prairie & Savannah Preserve – 246 acres, some located in Walworth and Waukesha Counties
- Faville Prairie – acreage not reported by DNR
- Jefferson Tamarack Swamp – 1,492 acres
- Kettle Moraine Oak Opening – 659 acres, some located in Walworth County
- Red Cedar Lake – 450 acres
- Snapper Prairie – 30 acres
- Waterloo Prairie – 220 acres, some located in Dodge County
- Young Prairie – 806 acres, some located in Walworth County

Environmental Corridors

Environmental corridors are natural areas and environmentally sensitive areas that contain floodplains, wetlands, public parks, recreation lands, conservancy lands, contiguous woodlands of greater than 10 acres, and land with a slope greater than 20%. Map 9 shows the locations of the environmental corridors in Jefferson County.

Agricultural Resources

The soils in Jefferson County are mapped and defined in the Soil Survey of Jefferson County, which is available at the Land and Water Conservation Department. A list of the soils in the County is included as Appendix A.

Since 1997, there has been a 4.8% reduction in the number of farms in the County and a 4.1% decrease in the land in farms (see Table 5). Statewide, there was a 3% reduction in both the number of farms and land in farms between 1997 and 2002.

Table 5. Farms in Jefferson County (USDA National Agricultural Statistics Service 2002 Farm Census)

Number of Farms		Land in Farms (Acres)		Average Farm Size (Acres)	
1997	2002	1997	2002	1997	2002
1,493	1,421	258,414	247,914	173	174

There is currently a transition in cropping systems occurring due to a decrease in the number of smaller dairy farms in the County. This reduction in dairy and other cattle has led to an increase in cash cropping systems, essentially taking alfalfa and other cover crops out of many crop rotations. This trend will make it increasingly difficult to plan farms below the tolerable soil loss and maintain the present enrollment in the Farmland Preservation Program. To counter this economic trend many producers have converted to reduced or no-till operations, somewhat offsetting the impacts of increased row cropping systems and a declining number of fields seeded down to a cover crop.

Farmland Preservation Program

The Farmland Preservation Program (FPP) currently has 1,039 participants in Jefferson County (2005) accounting for 149,653 acres, which is 77% of the farmland acres in the county. Map 10 displays the land in the Farmland Preservation Program.

Participation in FPP has been declining over the last 17 years. Table 6 shows a comparison of FPP participation between 1988 and 2005. One factor contributing to the decline of participation is the Use Value Assessment created in 1995 with Wisconsin Act 27. This legislation changed taxation on agricultural land from market value to use value. In other words, it bases the assessment of the land on its agricultural productivity rather than its potential for development. This has resulted in a decrease in taxes on farmland. As the Farmland Preservation tax credit is calculated based on a landowner's income and their property taxes, the amount of the credit has declined leaving some

farmers with little incentive to participate. Additionally, farms are continually being parceled up, leaving small agricultural tracts. On tracts of 35 to 40 acres, the tax credit is very small, again providing little incentive to participate.

Table 6. Jefferson County Participation in the Farmland Preservation Program

Total Participants		Total Acres in FPP	
1988	2005	1988	2005
1,082	1,039	176,000	149,653

Soil Erosion

A Soil Erosion Control Plan was prepared for Jefferson County in 1998 and is available at the Land and Water Conservation Department. Soil erosion was estimated for each township in the county. This information is now considered out of date. The Transect Survey, performed in Jefferson County on an annual basis, is a much better estimate of agricultural soil erosion.

Since 1999, the LWCD has been conducting a Soil Loss Transect Survey. The program was developed by Purdue University and estimates soil loss on a county-wide basis with an accuracy rate of over 95%. Department staff drive a designated route through the county, stopping every half mile or so to evaluate present and previous crops, type of tillage, and the slope of the field. This data is then sent to the Wisconsin Department of Agriculture for analysis.

The data gathered in the survey is broken down into the 13 watersheds within the County. In 2005, the Oconomowoc River Watershed had the highest average soil loss with a rate of 3.8 tons of soil lost per year with an average soil loss on fields over tolerable levels of 9.3 tons/acre/year. The lowest soil loss occurred in the Upper Koshkonong Watershed with no fields over tolerable levels. However it should be noted that this watershed is very small. The next lowest soil loss rates in a watershed of an appreciable size was the Scuppernong River Watershed with an average soil loss of 1.5 tons/acre/year and the average soil erosion value over tolerable levels of 5.1 tons/acre/year. Average soil loss for the entire county is 2.6 tons/acre/year with an average over tolerable soil loss of 7.6 tons/acre/year. Based on the data, 83% of Jefferson County crop fields are at or below tolerable soil loss levels.

The Transect Survey also quantifies residue management. Some of the conclusions derived from the 2005 report are:

- Soybean stubble residue is low while many farmers are no-tilling beans into corn stalks.
- 18% of all fields checked were no-tilled
- 35% of all fields checked were minimum tilled with residue levels of 15 to 50% residue after planting.
- 47% had less than 15% residue visible after planting.

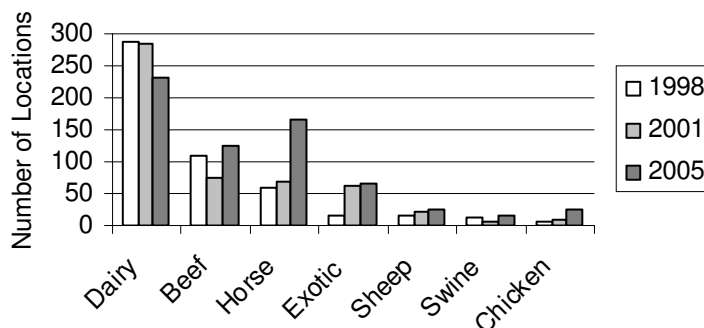
Livestock

The Land and Water Conservation Department conducts a livestock inventory every 5 years to identify the location and types of animals in the county. Locations are recorded for farms with 10 or more of dairy, beef, sheep, swine; 5 or more horses; commercial chicken operations; and any number of “other” species that could include donkey, bison, deer, goat, llama, alpaca, duck, geese, pheasant, peacock, honeybee, and fish.

The 2005 survey recorded 615 livestock locations in the county (Map 11). Dairy operations comprised the majority of locations, followed by horse, beef, “other”, chicken, sheep, and swine. Distribution of the livestock types was fairly consistent throughout the townships, with the exception of Palmyra and Sullivan where there seems to be a noticeable increase of horse farms.

Possible trends can be seen when comparing the data from all the livestock surveys (Chart 1). Dairy locations are declining, and all other livestock types are increasing. The most drastic change is the rapidly increasing horse locations. The number of horse locations was 60 in 1998, 69 in 2001, and 166 in 2005. This represents an increase of over 140% locations from 2001.

Chart 1. Livestock Trends in Jefferson County



Wildlife Resources

The Land and Water Conservation Department administers the Wildlife Damage Abatement and Claims Program for Jefferson County. Department of Natural Resources manages the program which works to minimize wildlife damage to crops and offers partial compensation for damage caused by wild deer, bears, turkeys, and geese.

The Land and Water Conservation Department also works with the Department of Natural Resources to administer the Deer Donation Program. This program allows hunters to donate their deer to local food pantries.

Work Plan

The work plan for the Land and Water Resource Management Plan identifies the federal, state, and county programs that will be used for implementation, explains the Priority Farm Strategy and the Implementation Strategy for the Agricultural Nonpoint Performance Standards and Prohibitions, explains the essentials of the Information and Education Strategy, and lists all of the goals, objectives, and actions of the Land and Water Conservation Department for 2006-2010. The Goals, Objectives, and Actions section includes a timeline for implementation, identifies partners, estimates staff time and costs for staff, and estimates the financial resources from cost-share programs that will be used for implementation. **It is important to note that the implementation of the work plan is dependent on receiving adequate financial resources to cover staff and the various cost-sharing programs.**

As stated earlier in this document, the work plan was a result of determining conservation needs through a public process. This was accomplished through assessing the land and water resources in the county and determining actions that will protect and enhance those resources. The work plan also is a result of collaborating with various partners to implement our common goals.

The State of the Rock River Basin Report (April 2002, PUBL # WT-668-2002) contains recommendations that list Land Conservation Departments as partners in implementation. The Land and Water Resource Management Plan works cooperatively with the DNR, and therefore, most of the goals of the basin are reflected in the work plan of the LWCD. The following is a list of the DNR's goals for the Rock River Basin. A "LWCD" in parentheses is included after each goal in which the LWCD is involved in some aspect of its implementation.

- Increase citizen participation in water quality efforts through education and involvement in Basin partnership projects. (LWCD)
- Work with Partners to use education and existing funding to develop new financial incentives to encourage landowners to protect/restore wetlands. (LWCD)
- Increase protection of urban wetlands through better cooperation among citizens, municipalities, state, federal, county agencies. (LWCD)
- Work with other agencies/non-profit organizations to promote CRP, CREP, WRP streambank buffers and vegetation. (LWCD)
- Provide and/or coordinate conservation funding efforts with other federal, state, county, or local organizations. (LWCD)
- Encourage farmers to do "Whole Farm Conservation Planning." (LWCD)
- Increase use of federal and state programs that help compensate farmers restricted from development.
- Promote, educate, and involve citizens about nutrients and lawns, storm drain stenciling, and septic systems. (LWCD)

- Identify component in a Basin River Management Plan to guide protection and restoration of the Basin's land, water, air, and wildlife resources.
- Establish 40,000 feet of shoreland buffers and 1,500 acres restored wetlands in the Basin. (LWCD)
- Increase natural area habitat protection, restoration and improvement by identifying specific critical habitats in the Basin in the comprehensive watershed management plans. (LWCD)
- Address gully, rill, and sheet erosion on agricultural lands through effective implementation of state, federal, and county conservation programs. (LWCD)
- Increase local ordinance protection and enforcement on construction site erosion. (LWCD)
- Promote protection of groundwater recharge areas, through land use planning. (LWCD)
- Identify location, populations, and movement of sensitive species. (LWCD)
- Demonstrate 5 proper well abandonments in the Basin. (LWCD)
- Promote Nutrient and Pesticide Management Plans to help reduce overuse of chemicals. (LWCD)

Throughout the work plan, there are references to conservation practices. The following are the conservation practices that can be cost-shared through the Land and Water Resource Management funds, the County Cost-Share program funds, and federal program funds:

Access roads, Animal trails and walkways, Barnyard runoff control systems, Cattle crossings, Contour farming, Cover and green manure crop, Critical area stabilization, Diversions, Field windbreaks, Filter strips, Grade stabilization structures, Heavy use area protection, Livestock fencing, Livestock watering facilities, Manure storage systems, Manure storage system closure, Milking center waste control systems, Nutrient management, Pesticide management, Prescribed grazing, Relocating or abandoning animal feeding operations, Residue management (No-Till), Residue management (Mulch Till), Riparian buffers, Roofs, Roof runoff systems, Sediment basins, Shoreland habitat restoration, Sinkhole treatment, Streambank and shoreline protection, Strip-cropping, Subsurface drains, Terrace systems, Tree and shrub establishment, Underground outlets, Waste transfer systems, Wastewater treatment strips, Water and sediment control basins, Waterway systems, Well decommissioning, Wetland development or restoration

When the Land and Water Conservation Department developed the Jefferson County Cost-Sharing Program in 2005, it was decided to distribute the funds in a priority driven manner. Applications are given points based in the following items:

- whether cost-sharing is required for compliance or in response to a violation
- whether practice addresses soil quality
- whether practice addresses water quality
- whether practice addresses ground water quality
- whether practice addresses habitat quality

- and whether a practice is defined as a high, medium, or low priority practice

This ranking will be revised based on some lessons learned during the first year of implementation. In fact, the LWCD plans to make any necessary changes to the ranking process at the end of each year. Because of the success of this process, it will be considered for use when ranking projects under the Land and Water Resource Management cost-sharing program. The ranking sheet is included in Appendix B.

Plan Implementation

The work plan will be implemented by the Land and Water Conservation Department. Components of the plan will be implemented in accordance to various state and local ordinances and regulations. Relevant rules are included below.

The Animal Waste Storage and Nutrient Management Ordinance (available from the LWCD and online at <http://www.co.jefferson.wi.us/>) is used to ensure manure storage structures are designed, constructed, altered, and closed according to standards and to ensure nutrient management plans developed in conjunction with the ordinance meet necessary standards. Linked with the Zoning Department's Conditional Use Permits, the Animal Waste Storage Ordinance also is used to ensure that nutrient management plans meet standards when farms propose to increase animal numbers. Enforcement matters for the Animal Waste Storage ordinance are handled by the LWCD.

The Nonmetallic Mining Reclamation Ordinance (available from LWCD and online at <http://www.co.jefferson.wi.us/>) is used to issue reclamation permits to ensure compliance with the state standards (NR 135). The standards address environmental protection measures including topsoil salvage and storage, surface and ground water protection, and minimizing wind and water erosion. The LWCD permits all sites and implements an annual certification fee and inspections.

The Shoreland Zoning Ordinance (available from the Zoning Department and online at <http://www.co.jefferson.wi.us/>) is used to ensure that shoreland habitat restoration plans meet standards when landowners propose to make changes to their shoreland property within 75 feet of water. In addition, the Shoreland Zoning Ordinance is used when determining if there are erosion problems that necessitate retaining walls within 75 feet of water. Enforcement matters for this ordinance are handled by the Zoning Department.

The Runoff Management Administrative Code (NR 151) for the State will be used for implementation and enforcement of the Agricultural Performance Standards and Prohibitions.

Rules to control polluted runoff from agricultural lands and other sources took effect on October 1, 2002. The DNR rule (NR 151) sets performance standards and prohibitions for farms to prevent runoff and protect water quality. The DATCP rule (ATCP 50)

identifies conservation practices that farms must follow to meet DNR standards. The agricultural performance standards and prohibitions are as follows:

- All land where crops are grown shall be cropped to achieve a soil erosion rate equal to or less than the “tolerable” (T) rate established for that soil. (NR 151.02)
- All livestock producers must construct, alter, or close manure storage facilities to prevent structural failures and leaks. (NR 151.05)
- All livestock producers within a water quality management area must divert clean water from feedlots, manure storage, and barnyards. (NR 151.06)
- All crop and livestock producers that apply manure or other nutrients to agricultural fields shall do so according to a nutrient management plan. (NR 151.07)
- All livestock producers must comply with the following manure management prohibitions. (NR 151.08)
 - No overflow of manure storage facilities
 - No unconfined manure pile in a water quality management area
 - No direct runoff from a feedlot or stored manure into the waters of the state
 - No unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover

A water quality management area is defined as:

- the area within 1,000 feet from the ordinary high water mark of navigable waters that consist of a lake, pond or flowage,
- the area within 300 feet from the ordinary high water mark of navigable waters that consist of a river or stream,
- a site that is susceptible to groundwater contamination, or that has the potential to be a direct conduit for contamination to reach groundwater.

Priority Farm Strategy

Determining and achieving compliance with the Agricultural Performance Standards is a large task. Therefore, the job will be done based on a priority strategy so that the most critical sites and areas are handled first. Below is the list of farms that are considered Priority Farms. Map 12 displays the areas that are currently considered Priority Farms.

1. Farms identified by the DNR as critical sites.
2. Farms receiving a “notice of discharge” or “notice of intent” from the DNR.
3. Farms within 1,000 feet of DNR designated “Impaired Waters”

Farms located in watersheds draining to “Impaired Waters” that are impaired due to sediment or nutrients. As of 2005, the Impaired Waters in Jefferson County are the following:

- Lake Koshkonong

- Maunasha River (Crawford to Waterloo)
- Rock River (Watertown to confl. w/ Ashippun)
- Rock River (Watertown to Lake Koshkonong)
- Steel Brook

Because the watersheds of these impaired waters essentially cover the entire county, the only farms that will be included as “priorities” in these watersheds are defined as being within 1,000 feet of the impaired water.

4. Farms identified by the LWCD or other cooperating agency as having significant problems with manure management, including problems with manure spreading.

5. Farms that have excessive rates of cropland erosion as identified by the LWCD or other cooperating agency.

The Strategy for the Agricultural Nonpoint Performance Standards and Prohibitions (located in the next section), will be implemented so that the Priority Farms are handled first. The LWCD will work to achieve compliance with the Standards and Prohibitions on a certain number of Priority Farms each year. In 2006, the LWCD will work to achieve compliance on 10 Priority Farms. This number will be adjusted each year according to how realistic this estimate turns out to be on how many farms the staff can handle.

Implementation Strategy for NR 151 **Agricultural Nonpoint Performance Standards and Prohibitions**

The Land and Water Conservation Department will implement the following strategy to ensure that farms are in compliance or attain compliance with the Agricultural Nonpoint Performance Standards and Prohibitions.

Information and Education Activities (related to Standards and Prohibitions)

In order to educate landowners about the Agricultural Performance Standards and Prohibitions, including applicable conservation practices and cost-sharing availability, the following will be implemented:

- An Informational Session for farmers and landowners will be held in 2006.
- Articles will be included in the LWCD newsletter that is distributed 2 times each year.
- Articles will be included in the FSA newsletter that is distributed approximately 4 times each year.
- Press releases will be sent to area papers each year.
- Information will be posted on the LWCD website.
- When available, education materials from DNR and DATCP will be provided to landowners, and made available at the LWCD office, UW-Extension, and cooperatives in the area.

Determining Compliance

Records Inventory

1. Review records of County, State, and Federal programs to determine participants with contracts to install conservation practices. Note: All applicable privacy protection rules and laws will be followed.
2. Determine which areas (parcels, fields, facility, etc.) are subject to standards and prohibitions.
3. Develop a map to display the installed practices and the areas subject to standards and prohibitions.
4. Determine the landowners who are meeting standards and prohibitions. This compliance is based on implemented conservation practices, participation with the WI Farmland Preservation Program and federal farm program conservation provisions, and adherence to state animal waste regulations such as NR 243 and WPDES.

Onsite Evaluations

1. Determine and prepare a list of the lands that require onsite evaluations. Lands that are not known whether they meet standards and prohibitions will be visited first.
2. Contact landowners of lands that will be visited by staff in order to explain process and schedule a site evaluation.
3. Conduct onsite evaluation.
 - a. Determine and document the extent of current compliance with each of the performance standards and prohibitions.
 - b. If lands are found to be non-compliant, determine practices needed, cost associated with practices, and eligibility for cost sharing.

Compliance Checklist

When determining compliance, the LWCD staff will use a Compliance Checklist. A draft of this checklist is included as Appendix C. The Checklist will be refined as we learn more from using it.

Compliance Report and Landowner Notification

1. Prepare an NR 151 Status Report and send to landowners of evaluated lands. This report will contain the following:
 - Current status of compliance with each of the performance standards and prohibitions.
 - If lands are non-compliant, identify options for corrective action and rough cost estimates for compliance.
 - Eligibility for cost-sharing.
 - Identification of funding sources and technical assistance including from federal, state, county, and third party service providers.
 - Conditions and technical standards that apply with cost-sharing.
 - Information about voluntary compliance and steps that will be taken if compliance is not voluntary.
 - Signature line indicating landowner agreement or disagreement with report findings.

2. The compliance reports will be kept in the office as public record.

Voluntary Compliance Protocol

1. Receive request for cost-sharing and/or technical assistance from landowner.
2. Confirm cost-share eligibility and determine availability of technical assistance.
3. If State or County cost-share will be used, develop and issue cost-share contract.
4. If Federal cost-share will be used, initiate and assist with communication between agency staff and the landowner.
5. Notification requirements under NR 151.09(5-6) and/or 151.095(6-7) will be followed.

Non-Voluntary Compliance Protocol

If the landowner chooses not to voluntarily apply for cost-sharing, or to voluntarily install or implement corrective actions, then LWCD will issue a Landowner Notification according to NR 151.09(5-6) and/or 151.095(6-7).

The Landowner Notification will be designed by the DNR and will contain the following:

- A description of the performance standard or prohibition being addressed.
- The compliance status determination made in accordance with NR 151.
- The determination as to which best management practices or other corrective measures are needed and which, if any, are eligible for cost sharing.
- The determination that cost sharing is or has been made available, including a written offer of cost sharing when appropriate.
- An offer to provide or coordinate the provision of technical assistance.
- A compliance period for meeting the performance standard or prohibition.
- An explanation of the possible consequences if the owner or operator fails to comply with provisions of the notice.
- An explanation of state or local appeals procedures.

Implementation of Corrective Action and Cost-Sharing

1. If cost sharing is involved, finalize and execute the cost-share agreement including a schedule for installing or implementing the best management practice(s).
2. Provide technical services and oversight:
 - Provide or review conservation plans.
 - Provide or review engineering designs.
 - Provide construction oversight.
 - Evaluate and certify installation of conservation practices.
3. After corrective measures are applied, conduct evaluation to determine if land is now in compliance with relevant performance standards and prohibitions.
 - If site is compliant, update NR 151 Status Report and issue Letter of NR151 Compliance. A Letter of NR 151 Compliance serves as official notification that the site have been determined to now be in compliance with applicable performance standards and prohibitions. The letter includes an appeals process if a landowner wishes to contest the findings. When and where counties are not operating under a local

ordinance, the issuance of a Letter of NR 151 Compliance would likely be a joint effort with the DNR in order to give it the significance and standing that it merits.

- If site is not compliant, seek non-regulatory remedies or initiate enforcement action. *Note: Follow-up measures at this stage will differ depending on the circumstances, including whether or not failure to comply is the fault of the landowner. If this is the case, then non-regulatory remedies will likely be sufficient. If not (e.g. there is an intentional breach of contract) then enforcement action may be necessary.*

Enforcement

The Land and Water Conservation Department plans to meet with staff from the DNR in order to determine enforcement responsibilities and protocols for violations to the Agricultural Nonpoint Performance Standards and Prohibitions. DNR staff included in the meeting will include the Upper and Lower Rock River Basin Water Team Leaders, Wastewater Engineer, and Wastewater Specialist, and the Conservation Warden(s). The goal of the meeting(s) will be to develop a Memorandum of Understanding that spells out the protocols for enforcement and the responsibilities of each party. The document will cover the item below:

1. If a landowner refuses to respond appropriately to the Landowner Notification, or is in breach of a cost share contract, then prepare and issue Notice of NR 151 Violation letter, or other appropriate notice per local ordinance, pursuant to NR 151.09(5) or (6), or 151.095(6) or (7). *Note: Enforcement, which begins with this letter, will be pursued in circumstances where: (a) there is a breach of contractual agreement including failing to install, implement or maintain BMP's according to the provisions of the agreement OR the landowner has failed to comply with a notice issued under the Non-Voluntary Compliance Protocol, AND (b) non-regulatory attempts to resolve the situation have failed.*
2. Schedule enforcement conference.
3. Participate in enforcement conference.
4. Initiate enforcement action:
 - Refer cases to DNR for enforcement.
 - Enforce through separate county ordinance, which incorporates standards.
 - Enforce through financial sanctions available through State program (e.g. FPP).
 - Enforcement through the local District Attorney.

Compliance Monitoring

Conduct periodic evaluations to verify ongoing compliance.

Respond to public complaints alleging noncompliance.

Ensure new owners are made aware of (and have access to) NR 151 compliance information that may pertain to the property they have just acquired.

Annual Reporting

1. Maintain a record of annual site evaluations which shows their location and compliance status.
2. Report estimated timeframe and staff resources needed to complete remaining site evaluations in the County.
3. Maintain a record of estimated costs of corrective measures for each parcel that has been evaluated and for which corrective measures have been estimated.
4. Maintain a record showing parcels where cost sharing has been applied to implement standards and prohibitions, the amount and source of those funds, and the landowner share.
5. Maintain a record and location of lands receiving Status Report letters and Notice of Violation letters.
6. Maintain a record of the annual cost of technical and administrative assistance needed to administer agricultural performance standards and prohibitions.
7. Maintain other reports as may be required in ATCP 50.
8. Compile locally-developed reports into regional and statewide NR 151 Progress Reports.

2006-2010 Goals, Objectives, and Actions

Implementation of the work plan is dependent on receiving adequate financial resources to cover staff and the various cost-sharing programs. Items that are listed in **bold** in the work plan are activities that are a priority for the Land and Water Conservation Department.

Implementation of Conservation Practices and Conservation Planning

Goal: Achieve measurable progress on protecting the resources in Jefferson County through implementation of conservation practices and conservation plan development. This includes:

1,500 feet of waterways per year	50 acres riparian buffers on agricultural land per year
2,000 acres of nutrient management plans per year	3 wetland restorations per year
400 feet of diversions per year	2 well closures per year

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Assist landowners with their conservation needs.	Consult with landowners and direct them to the best conservation program (federal, state, county) for their needs. (<i>LWCD</i>)	ongoing	2,500 hours \$77,000 County, DATCP	
	Provide technical assistance to landowners. (<i>LWCD/DATCP, NRCS</i>)	ongoing		
	Assist landowners with construction plans, contracts, and implementation of practices. (<i>LWCD</i>)	ongoing		
Administer the State Land and Water Resource Management Cost-Share Program.	Adopt and update annually a priority ranking system that is similar to the one used in the County Cost-Share Program to allocate money to the most critical resource concerns first. (<i>LWCD</i>)	2006 & annually	400 hours \$13,000 County, DATCP	\$15,000 DATCP (does not include \$ for specific practices listed below)
	Assist landowners with construction plans, contracts, and implementation of practices. (<i>LWCD</i>)	ongoing		
Administer the County Cost-Share Program.	Update the priority ranking system so that money is allocated to the most critical resource concerns first. (<i>LWCD</i>)	annually	300 hours \$10,000 County, DATCP	\$10,000 County (does not include \$ for specific practices listed below)
	Assist landowners with construction plans, contracts, and implementation of practices. (<i>LWCD</i>)	ongoing		
	Add urban practices to list of possibilities when standards are developed (such as rain gardens). (<i>LWCD/ DNR</i>)	when available		

Objectives	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Track progress on implementing conservation practices.	Maintain tracking system for cost-share programs. (LWCD) Estimate the phosphorus and sediment reductions achieved through implementation of conservation practices. (This information can be used to make necessary changes to the ranking system.) (LWCD)	ongoing ongoing	120 hours \$4,000 County, DATCP	
Educate citizens about conservation opportunities and progress.	Educate landowners and municipalities about existence of cost-share programs and the benefits of implementing conservation on the land. (LWCD) Educate the public and elected officials about the progress on addressing conservation needs through the cost-share programs. (LWCD)	ongoing ongoing	100 hours \$3,100 County, DATCP	
Install riparian and vegetative buffers and shoreline erosion control measures on qualifying agricultural, residential, and public lands.	Identify landowners and areas that may need a buffer. (LWCD/NRCS) Participate in a demonstration of native shoreline buffers. (LWCD/RRC, UW-EX) Provide training for landscape contractors to teach them proper techniques for implementing shoreline restorations and rain gardens. (LWCD/RRC, UW-EX)	ongoing 2007 2008	200 hours \$6,200 County, DATCP	\$48,000 County, DATCP, NRCS, FSA
Abandon unused wells.	Sponsor a countywide demonstration of proper well abandonment. (LWCD/UW-EX)	2007	20 hours \$620 DATCP, County	\$2,000 County, DATCP
Restore wetlands.	Direct landowners to cost-sharing programs for wetland restorations, including Wetland Reserve Program. (LWCD, NRCS, DATCP) Sponsor a demonstration of a wetland restoration. (LWCD/NRCS, UW-EX) Pursue wetland restoration partnerships with conservation groups. (LWCD)	ongoing 2007 ongoing	40 hours \$1,240 DATCP, County	\$5,250 County, DATCP, NRCS
Provide assistance to farmers to help them attain tolerable soil loss levels.	Work with landowners to develop and revise conservation plans – including enrolling eligible farmers into the Farmland Preservation Program. (LWCD) Work with landowners to plan and install best management practices on fields experiencing erosion. (LWCD)	ongoing as needed	2,000 hours \$62,000 DATCP, County	\$1,250 County, DATCP, NRCS
Encourage farms to implement and maintain nutrient management plans.	Secure funds to assist farmers with the development of nutrient management plans. (LWCD/DATCP) Assist UW-EX with farmer training sessions on nutrient management planning. (UW-EX/LWCD)	ongoing when offered	500 hours \$15,500 DATCP, County	\$14,000 DATCP, County, NRCS

Agricultural Resources

Goal: Ensure compliance with the Agricultural Performance Standards and Prohibitions

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Educate landowners about the Agricultural Performance Standards and Prohibitions.	Host an informational session for farmers and landowners. (<i>LWCD/UW-EX</i>) Use a variety of tools (newsletters, press releases, personal contact, website, pamphlets) to educate people about the standards and prohibitions. (<i>LWCD/UW-EX, FSA, DATCP</i>)	2006 ongoing	50 hours \$1,550	
Determine the compliance status of farms in terms of the standards and prohibitions.	Identify the Priority farms in the county that will be targeted for compliance review. (<i>LWCD</i>) Perform a records inventory to help determine compliance status (following all applicable privacy protection rules/laws). (<i>LWCD</i>) Perform onsite evaluations to determine compliance status. (<i>LWCD</i>)	2006 ongoing ongoing	300 hours \$9,300	
Attain compliance on farms that are identified as not adhering to the standards and prohibitions. (In 2006, the compliance check goal is 10 farms. Depending on success, the goal for successive years will be increase or decreased as necessary.)	Send compliance report to landowners to explain the standards and prohibitions, the importance of staying compliant, and their options for corrective action if they are not compliant. (<i>LWCD</i>) Provide technical assistance and cost-sharing guidance to landowners who decide to take corrective actions. (<i>LWCD</i>) Take necessary enforcement steps to attain compliance by landowners who choose not to take corrective actions to come into compliance. (<i>LWCD/DNR</i>)	ongoing ongoing as needed	300 hours \$9,300	*cost sharing is included in monies listed for County and DATCP programs above, plus federal programs
Ensure that animal waste storage structures are properly built, expanded, and closed according to the Animal Waste Storage and Nutrient Management Ordinance.	Assist landowners with planning, permitting, and implementation of manure storage and abandonment. (<i>LWCD/DATCP</i>) Educate farmers about the existence and requirements of the ordinance. (<i>LWCD/UW-EX</i>)	ongoing ongoing	75 hours \$2,325 County, DATCP	
Have all farmers in the County comply with the Manure Management Prohibitions.	When working on conservation plans, ensure that farmers are in compliance with Manure Management Prohibitions. (<i>LWCD</i>) Require farms to be in compliance with Manure Management Prohibitions before they receive a permit under the Animal Waste Storage and Nutrient Management Ordinance. (<i>LWCD</i>)	ongoing as needed	250 hours \$7,750 County, DATCP	*cost sharing is included in monies listed for County and DATCP programs

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
	Encourage landowners, through educational efforts, to voluntarily comply with Manure Management Prohibitions. (<i>LWCD/DNR Wardens</i>) When updating the livestock inventory, determine if livestock farmers are following the Manure Management Prohibitions. (<i>LWCD</i>)	ongoing 2010		above, plus federal programs
Quickly remedy manure spills, manure discharges into water, and bad manure management practices.	Investigate and track manure complaints. Take necessary steps toward remedying any manure problems. (<i>LWCD/DNR, DATCP</i>) Work with relevant agencies on the protocols and actions (with a potential MOU) that should be taken when animal manure is discharged into water. (<i>LWCD/DNR</i>)	ongoing 2006	75 hours \$2,325 County, DATCP	
Ensure that nutrient management plans are written to standards.	Provide conservation plans (including field and soil maps) and manure spreading restriction maps to crop consultants and farmers. (<i>LWCD</i>) Review and provide guidance on nutrient management plans associated with a Zoning Conditional Use permit or an Animal Waste Storage permit, and sometimes with WPDES permits. (<i>LWCD/Zoning, DNR</i>)	ongoing as needed	30 hours \$930 County, DATCP	
Maintain and expand soil erosion databases.	Perform transect survey to collect data on cropland conditions including information on residue and erosion. (<i>LWCD</i>)	annually	80 hours \$2,480 DATCP, County	

Water Resources – Lakes, Rivers, Groundwater, Wetlands

Goal: Adequately address the water resource issues facing Jefferson County.

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Establish a new position in the LWCD to work on water resource issues.	Obtain grant or county money to offset the cost of a new staff member. (<i>LWCD</i>)	2006	80 hours \$2,480 County, DATCP	
Have water resource protection be considered when planning new development.	Educate the county, towns, and municipalities about the importance of considering water resource issues when planning development. (<i>LWCD/Zoning</i>)	as needed	25 hours \$775	

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
	Provide maps to the county, towns, and municipalities to use in their planning efforts. (<i>LWCD</i>)	as needed	County, DATCP	
Foster locally-lead water resource groups.	Provide water resource groups with data, resources, and technical assistance. (<i>LWCD/UW-EX, DNR</i>)	as needed	40 hours \$1,250 County, DATCP	
Educate the public regarding water resource issues.	Identify and communicate with local groups who can assist with education efforts (Rotaries, Rock River Fisheries Rescue, Two Rivers Habitat Rescue, lake groups). (<i>LWCD</i>)	ongoing	40 hours \$1,250 County, DATCP	
	Develop educational and outreach strategies to inform the public about water resource issues. (<i>LWCD/UW-EX, RRC</i>)	ongoing		
Protect the natural areas encompassing rivers and streams.	Support the County's efforts to designate and protect green space and environmental corridors that surround the rivers and streams in the County. (<i>Parks/LWCD, Zoning</i>)	as needed	100 hours \$3,100 County, DATCP	
Implement the recommendations in the Lake Enhancement report.	Coordinate actions with lake groups and other county departments. (<i>LWCD/lake groups, UW-EX</i>)	ongoing	150 hours \$4,650 County, DATCP	
	Identify and obtain grant monies that can be used to implement the recommendations. (<i>LWCD</i>)	ongoing		
Develop management plans for lakes in the county.	Identify data gaps and implement monitoring efforts. (<i>LWCD/lake groups, DNR</i>)	ongoing	150 hours \$4,650 County, DATCP	
	Identify lake-specific problems and a plan for addressing them. (<i>LWCD/lake groups, DNR</i>)	ongoing		
Complete a needs assessment of the rivers and streams including reaches at risk and resource concerns.	Use the targeted areas list developed by the Rock River Partnership as a component to the needs assessment and determine the other information necessary for the needs assessment. (<i>LWCD/DNR, RRC, UW system, conservation groups</i>)	2006-2007	100 hours \$3,100 County, DATCP	
	Compile the information gathered in the needs assessment including information on water quality, in-stream and riparian habitat, wildlife, bank stabilization, dams, recreation. (<i>LWCD</i>)	2008-2009		
Develop a strategy for managing the rivers and streams.	Determine management activities that can address the "at-risk" reaches and resource concerns identified in the needs assessment. (<i>LWCD</i>)	2008-2010	150 hours \$4,650 County, DATCP	

Objectives	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Compile data on groundwater quality and quantity characteristics.	Work with partners to identify and map, as appropriate, groundwater data such as recharge/infiltration areas and springs. (<i>LWCD/DNR, USGS, WGNHS, Cnty. agencies</i>) Locate and map municipal and private wells, including wells no longer in use. (<i>LWCD/DNR, DATCP, Land Info. Dept.</i>)	ongoing ongoing	25 hours \$775 DATCP, County	
Assist landowners with determining the quality of water from their drinking water wells.	Assist landowners with sampling their drinking water wells. (<i>LWCD & UW-EX</i>)	ongoing	20 hours \$620 DATCP, County	
Gain a better knowledge about ground water flow dynamics in the county.	Support the efforts of the Rock River Coalition to implement a Groundwater Flow Model for the Rock River Basin. (<i>RRC & USGS/LWCD</i>)	as needed	15 hours \$465 DATCP, County	
Protect groundwater recharge/infiltration areas.	Share information and maps of recharge areas with land use planning entities and municipalities. (<i>LWCD/Cnty agencies</i>) Educate the public, land use planning entities, and municipalities about the importance of protecting groundwater recharge areas from development. (<i>LWCD/UW-EX</i>)	as needed ongoing	20 hours \$620 County, DATCP	
Protect springs in the county.	Inform and educate landowners about the detriments of grazing, cropping, spraying, tiling, and building ponds at spring sites. (<i>LWCD/UW-EX</i>)	as needed	10 hours \$310 County, DATCP	
Protect groundwater from pollution.	Educate municipalities about the importance of establishing a source water well head protection program. (<i>DNR/LWCD</i>) Inform and educate landowners and distributors about safely handling and storing chemicals. (<i>UW-EX, Solid Waste/ LWCD</i>)	ongoing ongoing	30 hours \$930 DATCP, County	
Expand the data available on wetland ecology and functions.	Support efforts to monitor wetlands in the County. (<i>RRC/UW-EX, DNR, LWCD</i>)	ongoing	30 hours \$920 DATCP, County	
Prevent the loss of wetlands.	Share wetland maps with land use planning entities and municipalities. (<i>LWCD/Cnty agencies</i>) Educate the public, land use planning entities, and municipalities about the laws associated with wetlands. (<i>LWCD/DNR, UW-EX, Zoning</i>)	as needed ongoing	40 hours \$1,240 DATCP, County	

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
	Educate the public, land use planning entities, and municipalities about the benefits of wetlands and the problems associated with the destruction of wetlands. (<i>LWCD/DNR, UW-EX</i>)	ongoing		
	Encourage the County, towns, and municipalities to have a minimum building setback from wetlands. (<i>LWCD</i>)	ongoing		

Agricultural Resources - Water Conveyance

Goal: Reduce the transport of sediment, nutrients, and pollutants to agricultural ditches and surface water.

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Map agricultural ditches.	Maintain maps of agricultural ditches. (<i>LWCD/Land Info Dept.</i>)	as needed	10 hours \$310	
	Make maps available to interested entities. (<i>LWCD</i>)	as needed	County, DATCP	
Foster information sharing between the LWCD and the County Farm Drainage Board about issues of common interest.	Attend Farm Drainage Board meetings and invite them to LWCD meetings in order to coordinate actions and open communication lines. (<i>LWCD/Drain Board</i>)	monthly	25 hours \$775 County, DATCP	

Natural Areas and Open Space

Goal: Protect and restore identified natural areas.

Objectives	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Restore natural areas and protect them against encroachment of development.	Assist with planning and implementation (including volunteer coordination) of natural area restorations (such as prairie/oak savanna and wetlands). (<i>Parks Dept./ LWCD, conservation orgs.</i>)	ongoing	50 hours \$1,550	
	Share maps of natural areas with land use planning entities and municipalities. (<i>LWCD/Cnty agencies</i>)	ongoing	DATCP, County	

Objectives	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
	Educate the public about the importance of protecting natural areas. (<i>LWCD/Cnty Parks</i>)	ongoing		
Encourage the use of public and nonprofit programs to protect natural areas and open space.	Identify grants that can assist in the protection of natural areas. (<i>LWCD</i>) Provide technical support to the Parks Department with natural area and agricultural protection through the DNR's Land Legacy program. (<i>Parks/LWCD, DNR</i>) Support County efforts to investigate the use of transfer of development rights and purchase of development rights programs as a means of equitably preserving open space and natural areas. (<i>LWCD</i>)	ongoing ongoing ongoing	80 hours \$2,480 County, DATCP	
Maintain the Potters Field in Jefferson.	Implement the tree, shrub, and flower planting plan. (<i>LWCD</i>) Implement weed management in the Potters Field. (<i>LWCD</i>)	2006 as needed	40 hours \$1,240 County, DATCP	

Woodlands

Goal: Preserve and enhance woodland areas.

Objectives	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Encourage the planting of 20,000 trees each year.	Promote and implement the yearly LWCD tree-seedling sale. (<i>LWCD/DNR Foresters</i>) Assist the Parks Department with planting trees on County parklands. (<i>Parks/LWCD</i>)	annually as needed	200 hours \$6,200 County	
Decrease fragmentation of woodland lots.	Encourage landowners to participate in the Managed Forest Law program each year. (<i>LWCD/DNR Foresters</i>)	annually	10 hours \$310 County, DATCP	
Increase education regarding tree issues.	Increase awareness about availability of DNR Foresters to assist landowners. (<i>LWCD/DNR Foresters</i>)	ongoing	10 hours \$310	

Objectives	Actions <i>(Lead/Partner)</i>	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
	Disseminate information on tree diseases and pests. <i>(LWCD/DNR Foresters, UW-EX)</i>	ongoing	County, DATCP	
	Provide educational information on tree issues during the annual tree seedling sale. <i>(LWCD/DNR Foresters)</i>	annually		

Shared Resources

Goal: Effectively manage shared land and water resources with other counties.

Objectives	Actions	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Work with other counties on shared land and water resources as needed.	Consult with other counties when conservation issues arise on shared resources. <i>(LWCD/surrounding counties, DNR)</i>	as needed	10 hours \$310 County, DATCP	

Rural and Urban Development

Goal: Reduce the delivery of sediment, nutrients, and other pollutants to surface water from rural and urban development.

Objectives	Actions <i>(Lead/Partner)</i>	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Educate towns, municipalities, developers, contractors, and homeowners about construction site erosion issues.	Develop educational information on the water pollution that can occur from construction site erosion, and on construction site erosion control. <i>(LWCD/UW-EX)</i> Work with partners on a workshop for developers, contractors, municipalities, town boards, etc. on construction site erosion issues. <i>(UW-EX/LWCD, DNR, DOC)</i>	2004 2007	40 hours \$1,240 County, DATCP	
Educate towns and municipalities about stormwater issues.	Coordinate educational opportunities with the Rock River Coalition's stormwater issue team. <i>(RRC/LWCD)</i>	ongoing	10 hours \$310 County, DATCP	

Objectives	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Have landowners adopt practices that will control nonpoint source pollution from their land.	<p>Develop educational information to promote on-site infiltration and rain gardens of water to share with developers, contractors, landscapers, lawncare companies, and homeowners. (<i>LWCD/UW-EX, DNR, towns, municipalities</i>)</p> <p>Provide landowners with information about the proper use of and alternatives to lawn chemicals, guidelines for developing on shorelines, and other home-oriented pollution prevention issues. (<i>LWCD/DNR, UW-EX, lake orgs, priority lakes</i>)</p> <p>Provide information to towns and municipalities about phosphorus-free fertilizer ordinances. (<i>LWCD/UW-EX, lake orgs, priority lakes</i>)</p>	<p>ongoing</p> <p>ongoing</p> <p>ongoing</p>	<p>20 hours \$620 DATCP, County</p>	
Determine if a County stormwater and erosion control ordinance is needed and if so, have the county adopt it.	<p>Convene a meeting of County staff to identify the need for a stormwater and erosion control ordinance in the county. (<i>LWCD, Zoning</i>)</p> <p>If an erosion control ordinance is needed, take steps to draft the ordinance. (<i>LWCD, Zoning</i>)</p> <p>Educate the public and elected officials about the ordinance and have the County Board consider adoption of the ordinance. (<i>LWCD, Zoning/UW-EX</i>)</p>	<p>2006</p> <p>2007-2008</p> <p>2008</p>	<p>70 hours \$2,170 County, DATCP</p>	

Non-Metallic Mining

Goal: Reclaim all active non-metallic mining sites.

Objective	Actions (Lead/Partner)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Have all sites obtain permits and properly close facilities.	<p>Review and approve reclamation plans. (<i>LWCD/DNR, Zoning</i>)</p> <p>Inspect and certify proper closures that follow reclamation plans. (<i>LWCD/DNR, Zoning</i>)</p>	<p>as needed</p> <p>as needed</p>	<p>200 hrs. \$6,200 County, DATCP</p>	

Wildlife Resources

Goal: Work with the Department of Natural Resources to implement various wildlife programs.

Objective	Actions (<i>Lead/Partner</i>)	When	Annual Estimated Staff Resources (hours, \$, source)	Estimated Annual Cost Share Resources (\$, source)
Implement the Wildlife Damage Abatement and Claims Program.	Assist landowners with preventing wildlife damage to their crops and by providing partial payment for crop losses. (<i>DNR/LWCD</i>)	annually	40 hrs. \$1,200 County	
Implement the Deer Donation Program.	Reimburse venison processors for the cost associated with preparing venison for food pantries. (<i>DNR/LWCD</i>)	Annually during deer hunting season	25 hours \$600 County	

Information and Education Strategy

Education is an integral part of the majority of the work done by the Land and Water Conservation Department. Ongoing education efforts are implemented in concert with the Land and Water Resource Management Plan to ensure the success of the plan. Some of the educational efforts are done in conjunction with the UW-Extension. They offer the expertise necessary to make the efforts successful. The following is a list of educational actions that will be taken to implement the work plan:

Personal Contacts with Landowners

Demonstration Projects

Workshops

Newsletters – LWCD Conservation Counts, FSA newsletter, various UW-EX newsletters

Press Releases to newspaper, local cable stations, radio stations

LWCD Website

Radio Interviews

Pamphlets and Brochures on a Wide Range of Topics

In 2006, the LWCD will continue its efforts to establish a “Jefferson County Services Tent” at the Jefferson County Fair. The idea is to have an area at the fair where various Departments in the county can display educational information. If successful, the LWCD will create a display that explains its programs and educates visitors about the land and water resources in Jefferson County.

The Land and Water Conservation Department and the Federal agriculture departments (FSA and NRCS) in Jefferson County are currently located in two separate locations. This sometimes leads to confusion and inconvenience for the landowners. As a way to be a “one-stop-shop” for the landowners, the LWCD and the federal departments will look for opportunities to co-locate.

Monitoring and Evaluation

Monitoring and evaluation is an integral component to the success of the Land and Water Plan and its goals. It will be an ongoing process that is implemented in a variety of ways. Throughout this process, necessary adjustments will be made to how actions in the work plan are implemented to ensure achievability of the goals.

Land and Water Resource Management Monitoring and Evaluation

Agricultural Performance Standards and Prohibitions – annually – track compliance status of farms

Conservation Practice Implementation – ongoing – map completed practices, tally the total practice units, estimate phosphorus and sediment reductions achieved

Farmland Preservation Program – 15-20% of farms in FPP monitored annually – determine if farms are following conservation plans and protecting their land from erosion

Livestock Inventory – every 5 years, 2010 – determines location and number of livestock facilities, shows trends

Manure Complaint Investigations – ongoing – track complaints, identify problems, and track progress toward rectifying problems

Nonmetallic Mines – annually – track number of acres that are in mines, track number of acres that are reclaimed

Nutrient Management Plans – annually – of the plans submitted to LWCD: map the fields that are in plans, estimate total acres of farms with plans

Transect Survey – annual survey – estimates soil loss, tracks residue management trends

Water Quality Monitoring in Lakes and Streams – as available – track water quality conditions through monitoring data

NOTE: The LWCD computer mapping system will be an important tool in the monitoring and evaluation process. Much of the information we collect (transect survey, livestock inventory, FPP participation, Nutrient Management Plans, etc.) is entered onto the system. A wide variety of maps can be produced at different scales that will assist in conservation planning and land and water resource protection.

Administrative Monitoring and Evaluation

All Office Programs – annually – review and refine administration of programs, evaluate available financial and staff resources and make necessary adjustments

Cost-Share Programs (State and County) – annually – review and update ranking system to allocate money to the most critical resource concerns first, regularly review and make necessary changes to implementation procedures, track amount of funds used in implementation of practices

Federal and County Cooperation – monthly meetings between LWCD, FSA, and NRCS department heads to discuss coordination of activities and programs, twice-a-year meetings with all staff from LWCD, FSA, and NRCS to discuss coordination of activities

Financial Audit – annual audit of grant revenues and expenditures by a 3rd party

LWCD Staff meetings – periodic meetings to discuss coordination of activities and programs

Partners in Management

Several entities are involved in the management of Jefferson County's land and water resources. Though each has its own mission, jurisdiction, and priorities, these entities are all working to protect and enhance the land and water resources into the future. This section lists these different agencies and organizations. Though efforts were made to include all management partners, this list is not necessarily comprehensive.

Federal Government

Army Corps of Engineers (Corps)

The Corps is the federal agency responsible for issuing permits to allow alteration of wetlands.

Contact Information: Daryl Wierzbinski
U.S. Army Corps of Engineers
1617 East Racine Avenue, Room 101
Waukesha, WI 53816
262-547-1876

Farm Service Agency (FSA)

U.S. Department of Agriculture agency that administers agricultural assistance programs including price supports, production controls, and conservation cost sharing.

Contact Information: Debra Schut, County Executive Director
Farm Service Agency
134 W. Rockwell Street
Jefferson, WI 53549
920-674-2020 ext. 107
debra.schut@wi.usda.gov

U.S. Fish and Wildlife Service (F&WS)

Federal agency that works with participating Land Conservation Committees to protect and restore wetlands through a matching grants program.

Contact Information: Art Kitchen
U.S. Fish and Wildlife Service
4511 Helgesen Drive
Madison, WI 53718
608-221-1206 ext. 13, fax: 608-221-1357

Natural Resources Conservation Service (NRCS)

An agency of the U.S. Department of Agriculture, NRCS provides soil survey, conservation planning, and technical assistance to local land users. They administer the Conservation Reserve Program, Conservation Reserve Enhancement Program, Environmental Quality Incentives Program, Wildlife Habitat Incentives Program, and the Wetland Reserve Program.

Contact Information: Brian Resch, District Conservationist
Natural Resources Conservation Service
134 W. Rockwell St.
Jefferson, WI 53549
920-674-2020 ext. 104, fax: 920-674-6195
brian.resch@wi.usda.gov

State Government

Department of Natural Resources (DNR)

The state agency responsible for managing state-owned lands and protecting public waters. DNR administers programs to regulate, guide, and assist with managing land, water, fish, and wildlife.

Contact Information:
Jim Congdon, Upper Rock Water Team Leader, 920-387-7872
Ken Johnson, Lower Rock Water Team Leader, 608-275-3243
Tim Galvin, Rock River Land Team Leader, 920-387-7875
Ruth Johnson, Water Resources Specialist, 920-387-7869
Dan Hunt, Water Management Specialist (North of Hwy 18), 920-387-7878
Mike Halstead, Water Management Specialist (South of Hwy 18), 608-743-4820
Charles Kilian, Wildlife Specialist, 920-648-3054
Mary Ann Kroehn-Buenzow, Forester (South half of County), 608-743-4830
Randy Stampfl, Forester (North half of County), 920-387-7884
David Walz, Conservation Warden, 920-988-9340
South Central Region
Department of Natural Resources
3911 Fish Hatchery Road
Madison, WI 53711
608-275-3266, fax: 608-275-3338

Department of Agriculture, Trade, and Consumer Protection (DATCP)

The state agency responsible for establishing and administering statewide soil and water conservation policies and programs. DATCP administers state cost-sharing funds for a variety of LWCD operations, including support of staff, materials, and conservation practices.

Contact Information:
David Jelinski, Director, Bureau of Land and Water Resources
Keith Foye, Chief, Land Management Section
Richard Castelnovo, Chief, Resource Planning Section
Ed Odgers, Chief, Conservation Engineering Section
Department of Agriculture, Trade, and Consumer Protection
P.O. Box 8911
Madison, WI 53708-8911

University of Wisconsin – Extension (UW-EX)

The outreach of the University of Wisconsin system responsible for formal and informal educational programs throughout the state.

Contact Information:

Tim Bender, Crops and Soils Agent
Ken Bolton, Dairy and Livestock Agent
Steve Grabow, Community Development Agent
Suzanne Wade, Rock River Basin Educator
864 Collins Road
Jefferson, WI 53549
920-674-7295, fax: 920-674-7200
<http://www.uwex.edu/ces/cty/jefferson/>

County Government

Farm Drainage Committee

The Jefferson County committee that oversees legal drain issues in the County.

Contact Information:

For current appointments: Jefferson County Administration, 920-674-7101

Land and Water Conservation Department

The mission of the Jefferson County Land and Water Conservation Department is to promote the implementation of land and water conservation practices and to achieve greater environmental stewardship of the land.

Contact Information:

Mark Watkins, County Conservationist
Nancy Lannert, Resource Conservationist
Patricia Cicero, Resource Conservationist
Gerry Kokkonen, GIS Technician
Land and Water Conservation Department
320 South Main Street
Jefferson, WI 53549
920-674-7110, fax: 920-674-7114
<http://www.co.jefferson.wi.us/lcon/>

Land Information Office

The Jefferson County Land Information Office compiles and maintains real estate rolls and maps for property assessment and taxation.

Contact Information:

Andrew Erdman, Director
Land Information Office
320 South Main Street
Jefferson, WI 53549
920-674-7254, fax: 920-674-7368

Parks Department

The Jefferson County Parks Department is responsible for maintaining and improving the park facilities within the park system, as well as expanding the system as the demand for additional recreational facilities increases.

Contact Information:

Joseph Nehmer, Director
Steve Hoeft, Parks Operations Supervisor
Parks Department
320 South Main Street
Jefferson, WI 53549
920-674-7260, fax: 920-674-7200

Zoning and Sanitation Department

The Jefferson County Zoning and Sanitation Department advises applicants about required permits and approvals, issues permits, makes inspections, and takes enforcement actions under the Jefferson County Zoning, Land Division/Subdivision, Floodplain, and Sanitation Ordinances.

Contact Information:

Bruce Haukom, Zoning Administrator
Zoning and Sanitation Department
320 South Main Street
Jefferson, WI 53549
920-674-7130, fax: 920-674-7368

Town Organizations

Jefferson County Towns Association, Richard Gimler, 920-261-2964

Agricultural Organizations

Jefferson County Animal Agriculture Alliance, Kevin Griswold, Chair, 262-853-3907,
1660 S. Church St. PMB 294, Watertown, WI 53094
Jefferson County Dairy Herd Improvement Association, 920-674-0666
Jefferson County Farm Bureau, 920-674-3680

Lake Organizations

Blue Spring Lake Management District, Frank Shuler, President, 414-495-4125
The Friends of Red Cedar Lake, Fred Barlow
Golden Lake Association, Bob Kudis, 262-567-3937
Joint Rock Lake Committee, contact Lake Mills Town Clerk, 920-648-5867
Lake Ripley Management District and Lake Ripley Priority Lake Project, Paul Dearlove,
Project Manager, 608-423-4537, www.lakeripley.org
Lower Spring Lake Protection and Rehabilitation District, Bill Alveshire, 262-495-4754
Mud Lake Habitat Restoration Association, Ed Chin, 414-431-0789
Rock Koshkonong Lake District, Brian Christianson, Chairman, 608-884-8008,
www.rkld.org
Rock Lake Improvement Association, Karl Vonderohe, President, 920-648-2013,
www.rocklake.org
Rock River Koshkonong Association, Frank MiCale, 920-563-8518
Rome Lake Improvement Association, Ruth Spaue, 414-593-8890

River Organizations

The Friends of Allen Creek Watershed, Andy Selle, President, 920-648-5500,
www.friendsofallencreek.org

Rock River Coalition, Suzanne Wade, 920-674-7295, www.rockrivercoalition.org

Wetland Organizations

Lake Koshkonong Wetland Association, Rick Persson, 920-568-9073,
www.koshwetlands.org

Conservation, Sportsman, and Environmental Groups

Badger Fly Fishers, Janis Emmling, 920-648-2001
Conservation Congress, Dennis Jones, 920-563-2749
Ducks Unlimited, Koshkonong Chapter, Brian Haukom, 920-563-2946 or 920-563-4207
Federation of Fly Fishers, Philip Emmling, 608-262-2899
Fort Atkinson Wisconservation Club, Jon Strom, 920-563-4592
Isaac Walton League, Gary Stark, 920-261-8135
Jefferson County Environmental Network, Martine Koeppel, 920-261-8560
Jefferson County Land Trust, Winona Brattset, 262-593-8051
Jefferson County Snowmobile Alliance, Gene Sonnenberg, Trail Master, 920-563-2903
Jefferson Sportsmen Club, 920-699-3968
Lake Mills Conservation Club, Lee Braatz, 920-648-5733
Milford Hills Hunt Club, 920-699-2249
Oakland Conservation Club, Gary Schenck, 920-563-9194
Oconomowoc Sportsmans Club, Inc., Bob Manor, President, 414-593-8990
Pheasants Forever, Clay Frazer, 920-474-4817
Watertown Conservation Club, Dave Chingway, President, 920-261-8017

Appendix A

Soils of Jefferson County

Map Symbol – Soil Name	Acres	Percent
Ad – Adrian muck	8,935	2.4
AzA – Aztalan fine sandy loam, 0 to 3 percent slopes	7,520	2.0
BaA – Barry silt loam, 0 to 3 percent slopes	1,755	0.5
BoC – Boyer loamy sand, 6 to 12 percent slopes	2,115	0.6
BpB – Boyer sandy loam, 1 to 6 percent slopes	7,055	1.9
CaB2 – Casco loam, 2 to 6 percent slopes, eroded	950	0.3
CaC2 – Casco loam, 6 to 12 percent slopes, eroded	4,555	1.2
CrD2 – Casco-Rodman complex, 12 to 20 percent slopes, eroded	4,600	1.2
CrE – Casco-Rodman complex, 20 to 45 percent slopes	1,490	0.4
CtB – Chelsea loamy fine sand, 1 to 6 percent slopes	1,005	0.3
CtC – Chelsea loamy fine sand, 6 to 20 percent slopes	850	0.2
DcA – Del Rey silt loam, 0 to 3 percent slopes	3,530	0.9
DdB – Dodge silt loam, 2 to 6 percent slopes	3,550	0.9
Ed – Edwards muck	805	0.2
Ev – Elvers silt loam	450	0.1
Fn – Fluvaquents	3,455	0.9
FoC2 – Fox loam, 6 to 12 percent slopes, eroded	4,330	1.2
FsA – Fox silt loam, 0 to 2 percent slopes	3,655	1.0
FsB – Fox silt loam, 2 to 6 percent slopes	12,870	3.4
Gd – Gilford sandy loam	1,720	0.5
GsB – Grays silt loam, 2 to 6 percent slopes	720	0.2
GtB – Grellton fine sandy loam, 2 to 6 percent slopes	1,345	0.4
GwB – Griswold sandy loam, 2 to 6 percent slopes	610	0.2
GwC2 – Griswold sandy loam, 6 to 12 percent slopes, eroded	375	0.1
HeB – Hebron loam, 1 to 6 percent slopes	2,780	0.7
Ht – Houghton muck	28,915	7.7
JuB – Juneau silt loam, 1 to 6 percent slopes	1,390	0.4
Kb – Keowns silt loam	14,675	3.9
KdA – Kibbie fine sandy loam, 0 to 3 percent slopes	5,175	1.4
KeB – Kidder sandy loam, 2 to 6 percent slopes	5,670	1.5
KeC2 – Kidder sandy loam, 6 to 12 percent slopes, eroded	3,730	1.0
KfB – Kidder loam, 2 to 6 percent slopes	11,900	3.2
KfC2 – Kidder loam, 6 to 12 percent slopes, eroded	15,505	4.1
KfD2 – Kidder loam, 12 to 20 percent slopes, eroded	5,625	1.5
KgB – Kidder loam, moderately well drained, 2 to 6 percent slopes	3,155	0.8
LaB – Lamartine silt loam, 2 to 6 percent slopes	14,645	3.9
LyB – Lorenzo sandy loam, 2 to 6 percent slopes	300	0.1
MgA – Martinton silt loam, 0 to 2 percent slopes	2,440	0.6
MgB – Martinton silt loam, 2 to 6 percent slopes	2,260	0.6
MmA – Matherton silt loam, 0 to 3 percent slopes	9,210	2.5
MnA – Matherton silt loam, clayey substratum, 0 to 3 percent slopes	3,585	1.0
MoB – Mayville silt loam, 2 to 6 percent slopes	4,665	1.2
MpB – McHenry silt loam, 2 to 6 percent slopes	7,005	1.9
MpC2 – McHenry silt loam, 6 to 12 percent slopes, eroded	5,585	1.5
Mr – Milford silty clay loam	11,885	3.2

MvB – Moundville loamy sand, 1 to 6 percent slopes	1,620	0.4
Ot – Otter silt loam	1,965	0.5
Pa – Palms muck	14,275	3.8
Pb – Palms muck, ponded	2,530	0.7
Pg – Pits, gravel	340	0.1
RaA – Radford silt loam, 0 to 3 percent slopes	1,790	0.5
RnB – Ringwood silt loam, 2 to 6 percent slopes	620	0.2
RtB – Rotamer loam, 2 to 6 percent slopes	1,865	0.5
RtC2 – Rotamer loam, 6 to 12 percent slopes, eroded	7,125	1.9
RtD2 – Rotamer loam, 12 to 20 percent slopes, eroded	5,605	1.5
RtE2 – Rotamer loam, 20 to 30 percent slopes, eroded	1,895	0.5
SbA – St. Charles silt loam, moderately well drained, 0 to 2 % slopes	1,325	0.4
SbB – St. Charles silt loam, moderately well drained, 2 to 6 % slopes	4,140	1.1
SfB – St. Charles silt loam, moderately well drained, gravelly Substratum, 2 to 6 percent slopes	2,440	0.6
ShB – Salter loamy sand, 2 to 6 percent slopes	465	0.1
SkB – Saylesville silt loam, 2 to 6 percent slopes	1,990	0.5
SlC2 – Saylesville silty clay loam, 6 to 12 percent slopes, eroded	435	0.1
Sm – Sebewa silt loam	7,920	2.1
Sn – Sebewa silt loam, clayey substratum	6,565	1.8
SoB – Sisson fine sandy loam, 1 to 6 percent slopes	1,555	0.4
SoC2 – Sisson fine sandy loam, 6 to 12 percent slopes, eroded	685	0.2
ThB – Theresa silt loam, 2 to 6 percent slopes	1,580	0.4
ThC2 – Theresa silt loam, 6 to 12 percent slopes, eroded	3,145	0.8
TuA – Tuscola silt loam, 0 to 2 percent slopes	1,060	0.3
TuB – Tuscola silt loam, 2 to 6 percent slopes	2,640	0.7
Ud – Udorthents	385	0.1
VrB – Virgil silt loam, 2 to 6 percent slopes	3,255	0.9
VwA – Virgil silt loam, gravelly substratum, 0 to 3 percent slopes	2,095	0.6
Wa – Wacousta silty clay loam	17,785	4.8
WmA – Wasepi sandy loam, 0 to 3 percent slopes	3,390	0.9
WtA – Watseka Variant loamy sand, 0 to 3 percent slopes	3,030	0.8
WvA – Wauconda silt loam, 0 to 2 percent slopes	4,915	1.3
WvB – Wauconda silt loam, 2 to 6 percent slopes	2,860	0.8
WxB – Whalan loam, 2 to 6 percent slopes	2,415	0.6
WxC2 – Whalan loam, 6 to 12 percent slopes, eroded	705	0.2
WyA – Whalan Variant silt loam, 0 to 3 percent slopes	345	0.1
YaA – Yahara fine sandy loam, 0 to 3 percent slopes	5,860	1.5

Appendix B

2005 Ranking Sheet for County Cost Share Program

Ranking Sheet for Jefferson County Cost-Share Program

Name: _____

Address: _____

Main Practice: _____

Supporting Practices: _____

	<u>Points</u>
Is this practice(s) needed to be in compliance with the Agricultural Standards and Prohibitions, in response to an enforcement action, or in response to a violation? If Yes, points = 15	_____
Will the practice address soil quality? If Yes, points = 10	_____
Will the practice address water quality? If Yes, points = 10	_____
Will the practice address ground water quality? If Yes, points = 10	_____
Will the practice address habitat quality? If Yes, points = 5	_____

Circle the main practice of application and assign the appropriate points.

High Priority Practices, Points = 15

Barneyard runoff control system, Cattle crossing, Diversion, Manure storage systems, Manure storage system closure, Milking center waste control system, Nutrient management (for 1st time cost-sharing), Relocating or abandoning animal feeding operations, Residue management (new practice only), Roofs, Roof runoff system, Sediment basin, Strip-cropping, Terrace system, Waste transfer system, Wastewater treatment strip, Well decommissioning

Medium Priority Practices, Points = 10

Contour farming, Critical area stabilization, Field windbreaks, Grade stabilization structures, Heavy use area protection, Pesticide management, Shoreland habitat restoration, Streambank and shoreline protection (if combined with shoreland habitat restoration), Underground outlets, Water and sediment control basins, Waterway systems

Low Priority Practices, Points = 5

Access road, Animal trails and walkways, Cover and green manure crop, Filter strips, Livestock fencing, Livestock watering facilities, Nutrient management (if received previous cost-sharing), Prescribed grazing, Riparian buffer, Sinkhole treatment, Streambank and shoreline protection (if stand alone project), Subsurface drain, Tree and shrub establishment, Wetland restoration

Total Points

Appendix C

Draft Compliance Checklist

DRAFT Jefferson County Checklist for Agricultural Performance Standards and Prohibitions

Landowner: _____ Operator: _____

Address: _____

Completed by: _____ Date: _____

Location of Farmland (township, range, section): _____

Sheet, Rill, and Wind Erosion (NR 151.02)

All agricultural land shall be cropped so that soil erosion rate is $\leq T$ (tolerable).

- Is there a conservation plan that is up to date? _____
- Does the existing plan meet T using RUSLE 2? _____

Manure Storage Facility (NR 151.05)

New, altered, or abandoned manure storage facilities must meet standards.

New Construction and Alterations (NR 151.05(2))

- Is there manure storage on property? _____
- What year was facility installed/altered? _____
- Is the facility certified as meeting NRCS standards? _____

Closure (NR 151.05(3))

- Has manure been added or removed within the last 24 months? _____
- If no, is retention of facility warranted based on future use? _____

Failing and Leaking Existing Facilities (NR 151.05(4))

- Does facility pose an imminent threat to public health or fish and aquatic life, or is it violating groundwater standards? _____

Clean Water Diversions (NR 151.06)

Runoff shall be diverted away from feedlots, manure storage areas, and barnyard areas within water quality management areas (WQMA). WQMA is $\leq 1,000$ ft. from lakes, ≤ 300 ft. from streams, or a site susceptible to groundwater contamination.

- Is a feedlot, barnyard, or manure storage area located in WQMA? _____
- If yes, is clean water from roofs and surface runoff being diverted away from those areas? _____

Nutrient Management (NR 151.07)

Crop and livestock producers that apply manure and other nutrients to agricultural fields shall do so according to a nutrient management plan.

- Is there a nutrient management plan for the farm? _____
- If yes, what crop year does the plan cover? _____
- Who prepared the plan? _____
- Does any cropland drain to outstanding, exceptional, or impaired waters? _____

Manure Management Prohibitions (NR 151.08)

All livestock producers shall comply with these prohibitions.

- Does operation have any manure storage facility overflow? _____
- Does operation have any unconfined manure pile in a water quality management area? _____
- Does operation have any direct runoff from a feedlot or stored manure into the waters of the state? _____
- Does operation allow unlimited livestock access to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover? _____

Additional Resource Inventory Items

- Is there an existing unused well located on the property? _____
- Is there animal manure or sludge/septage from other entities applied on this farm? _____
- Are there concentrated flow area that erode on a regular basis? _____
- Are there streams, ditches, lakes, or wetlands which do not have adequate vegetative buffers? _____
- Are there any conservation needs of the farm that are not addressed elsewhere on this checklist? _____
- If so, list: _____

List all animals located on property:

Animal Types	Number
_____	_____
_____	_____
_____	_____
_____	_____

List all existing conservation practices installed on property:

Practice Name	Date Installed	Practice Maintained?
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____